

Preliminary Assessment BREEAM 2014 Refurbishment & Fit Out 176 Prince of Wales Road

Document information

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The Zabłudowicz Art Trust
c/o Tamares Real Estate Investments (UK)

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Assessment information

Prepared by:
Ben Holmes

Assessment QA by:
Chris Hocknell

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Executive Summary

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Introduction

Eight Associates have been appointed, as registered BREEAM assessors, to carry out an assessment of the proposed refurbishment at 176 Prince of Wales Road, Location. This project will be assessed under BREEAM Refurbishment and Fit Out 2014 (Non-Domestic Buildings).

This summary is a pre-assessment of the development; it outlines the anticipated score following the information provided by the design team at a meeting held in November 2016 and subsequent discussions.

Planning requirements

The London Borough of Camden and Greater London Authority require all major developments (including refurbishments and/or fit-outs) of this size to achieve a BREEAM VERY GOOD rating overall.

Score summary

The site reviewed currently achieves a score of **57.0%**, which equates to a **VERY GOOD** rating (55% required as a minimum).

BREEAM Introduction

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The BREEAM Standard

BREEAM (Building Research Establishment's Environmental Assessment Method) is the world's leading and most widely used environmental assessment method for buildings. It sets the standard for best practice in sustainable design and has become the de facto measure used to describe a building's environmental performance.

Building projects are assessed at design and post-construction stages using a system of environmental issues grouped within the following categories:

- Management
- Health and Wellbeing
- Energy
- Transport
- Water
- Materials
- Waste
- Land Use & Ecology
- Pollution
- Innovation

The assessment of the building results in a final report and issuing of a BRE Global BREEAM certificate detailing the performance of the assessed building against the environmental issues covered by the standard. The building's performance is expressed as a BREEAM rating of PASS, GOOD, VERY GOOD, EXCELLENT or OUTSTANDING.

BREEAM is developed, operated and maintained by BRE Global Ltd and the operation and direction of the method is overseen by an independent Sustainability Board, representing a wide cross-section of construction industry stakeholders. Further information about BREEAM, including copies of the BREEAM standards, can be found at www.breem.org.

Aims of BREEAM

- To mitigate the impacts of buildings on the environment
 - To enable buildings to be recognised according to their environmental benefits
 - To provide a credible, environmental label for buildings
 - To stimulate demand for sustainable buildings
-

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Process of the assessment

BREEAM Refurbishment and Fit-out 2014 is a performance based assessment method and certification scheme for existing building refurbishment and fit-out projects. The primary aim of BREEAM Refurbishment and Fit-out 2014 is to promote the delivery of sustainable refurbishment and fit-out, in order to mitigate the life cycle impacts of existing buildings on the environment in a robust and cost effective manner.

The scheme intends to measure, evaluate, and reflect the performance of refurbishment or fit-out projects against best practice in an independent and robust manner.

All BREEAM assessments take place over two phases:

- a. **Design Stage Assessment:** This is based on the final design for the development and the intentions of the design team.
- b. **Post Construction Review:** This is based on the completed development and requires the BREEAM assessor to carry out a site inspection.

Following completion of the Design Stage Assessment the BRE will issue an interim certificate; final certification is awarded following the completion of the Post Construction Review.

For projects with a short or programme it is also possible to complete a Post Construction Assessment (PCA), whereby the design and post-construction stages are combined; interim certificates are unavailable for Post Construction Assessments.

BREEAM Refurbishment and Fit-Out provides a modular framework for projects. The scheme is split into the following parts, which are selected according to the scope of works. Each part defines a set of individual measures and associated criteria against which a project is assessed.

- Part 1: Fabric and Structure.
- Part 2: Core Services.
- Part 3: Local Services.
- Part 4: Interior Design.

This approach provides the scheme's users with a flexible means of measuring the environmental performance of their building and comparing it with other buildings across the property market, backed with the assurance that independent third party certification of the assessment process provides.

A project can choose which parts they wish to gain certification against and the certificate will clearly highlight the parts that the project have been assessed under.

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Ratings

The assessment process results in a rating on a scale of PASS, GOOD, VERY GOOD, EXCELLENT and OUTSTANDING. The rating bands for each are as follows:

Rating	%
Pass (P)	30%
Good (G)	45%
Very Good (VG)	55%
Excellent (E)	70%
Outstanding (O)	85%

Mandatory credits

Some credits within the above categories are mandatory to achieve certain ratings:

BREEAM Issue	P	G	VG	E	O
Man 03: Responsible Construction Practices	-	-	-	1 credit	2 credits
Man 04: Commissioning and Handover	-	-	-	Criterion 9 ¹	Criterion 9 ¹
Man 05: Aftercare	-	-	-	1 credit ²	1 credit ²
Ene 01: Reduction of CO ₂ emissions	-	-	-	6 credits	10 credits
Ene 02: Energy Monitoring	-	-	1 credit ³	1 credit ³	1 credit ³
Wat 01: Water Consumption	-	1 credit ⁴	1 credit ⁴	1 credit ⁴	2 credits ⁴
Wat 02: Water Monitoring	-	Criterion 1 ⁵	Criterion 1 ⁵	Criterion 1 ⁵	Criterion 1 ⁵
Mat 03: Responsible Sourcing	Criterion 1 ⁶	Criterion 1 ⁶	Criterion 1 ⁶	Criterion 1 ⁶	Criterion 1 ⁶
Wst 01: Construction Waste Management	-	-	-	-	1 credit
Wst 03: Operational Waste	-	-	-	1 credit	1 credit

¹ Building User Guide
² Seasonal commissioning (only applicable to assessment parts 2 and 3)
³ Only applicable to assessment parts 2, 3 and 4)
⁴ Where applicable (if water consuming equipment or plant is included)
⁵ Mains water meter specified (only applicable to assessment part 2)
⁶ All timber and timber-based products to comply the UK Government's definition of 'legally harvested and traded'

Please note that full details for each credit follow later in this document.

Score Breakdown

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Rating summary

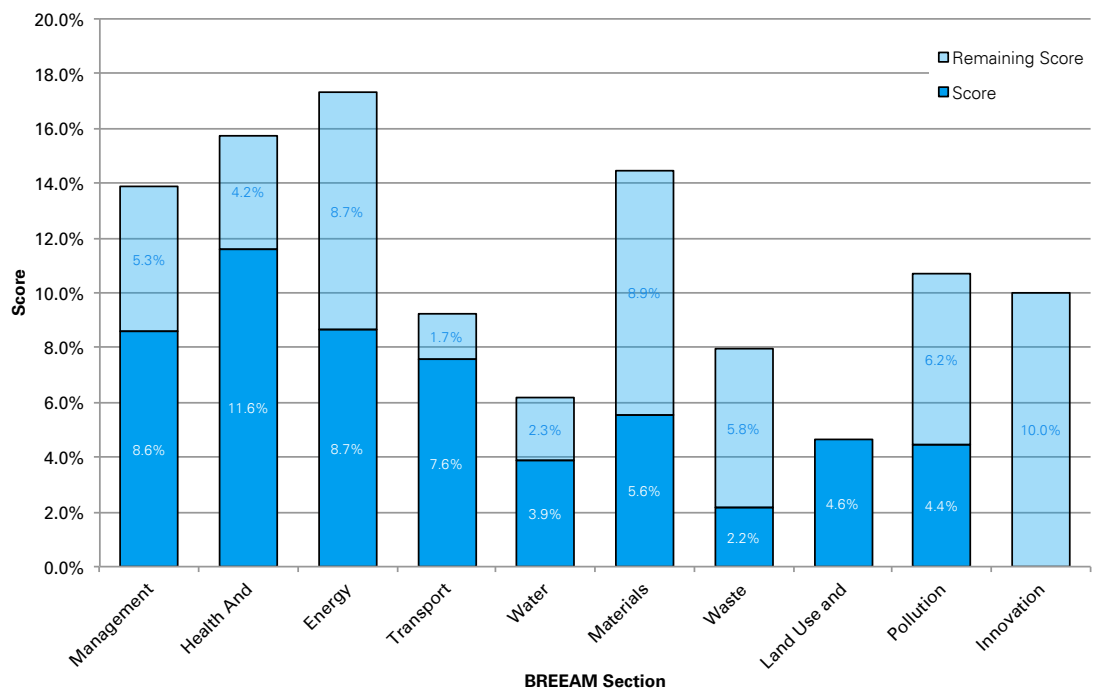
Unclassified	<30%
Pass	≥30% - <45%
Good	≥45% - <55%
Very Good	≥55% - <70%
Excellent	≥70% - <85%
Outstanding	≥85%

The following summary represents the scheme's preliminary score based on the assumptions in the following pages. Please contact the assessor if a score sheet is required.

Credit Issue	Targeted Credits	Available Credits	% Achieved	Weighting	Score
Management	13	21	61.9%	13.87%	8.6%
Health And Wellbeing	14	19	73.7%	15.76%	11.6%
Energy	13	26	50.0%	17.30%	8.7%
Transport	9	11	81.8%	9.24%	7.6%
Water	5	8	62.5%	6.16%	3.9%
Materials	5	13	38.5%	14.44%	5.6%
Waste	3	11	27.3%	7.94%	2.2%
Land Use and Ecology	2	2	100.0%	4.62%	4.6%
Pollution	5	12	41.7%	10.67%	4.4%
Innovation	0	10	0.0%	10.00%	0.0%
Total					57.0%
					VERY GOOD

Graphical breakdown of credits awarded

The graph below shows the target score for each BREEAM section (in dark blue) and remaining score available (light blue).



Assessment Details

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Parts assessed

- Part 1: ✓
- Part 2: ✓
- Part 3: ✓
- Part 4: ✓

Part 1: Fabric and Structure (included in assessment)

A Part 1 assessment may be appropriate where a refurbishment project includes one or more of the following alterations to the building fabric:

- Building façade
- Roof
- Windows

Part 2: Core Services (included in assessment)

A Part 2 assessment may be appropriate where **at least two** of the following are being installed or upgraded to a level that requires compliance with the Building Regulations Compliance Guide:

- Central air handling unit
- Heating boiler
- More than 50% of heat distribution chiller plant
- More than 50% of chiller distribution
- Water services (sanitary fittings in core)
- Building management system
- Community heating system (e.g. CCHP)
- Low and zero carbon technologies.

Part 3: Local Services (included in assessment)

A Part 3 assessment may be appropriate where **at least two** of the following fixed local building services are being installed or upgraded (e.g. a replacement or new installation of local heating/cooling units):

- Replacement of more than 50% of light fittings, system and controls
 - Upgrade of zone controls
 - Local ventilation
 - Local heating units (including sources not connected to core services)
 - Local cooling units (including sources not connected to core services)
 - Point of use water heaters.
-

Assessment Details

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Parts assessed (continued)

Part 4: Interior Design (included in assessment)

A Part 4 assessment may be appropriate where the refurbishment or fit-out works involve changes to the layout and/or redecoration of the refurbishment or fit-out area. Including **two or more** of the following:

- Wall coverings
- Floor coverings
- Ceiling covering or systems
- Partitions
- Raised floor system
- Furniture and fittings

And **at least one** of the following:

- Sanitary fittings
 - Equipment (e.g. office equipment, display lighting, freezers)
 - Local electrical installations (e.g. sub-metering)
-

Assessment Details

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Project specific details

Technical manual number:	SD216 Issue 1.0
Project type:	Refurbishment of an existing building
Sector	Other
Building type:	Non-residential institutions (art gallery)
Historic building?	Yes
Commercial and/or industrial scale refrigeration or storage specified?	No
New building user transportation systems?	Yes
Laboratories present?	No
Systems that significantly contribute towards unregulated energy demands?	Yes
Sanitary fittings within scope?	Yes
Office areas included?	Yes
Unregulated water demand?	No
Landscaping included?	No
Local cooling included?	Yes
Local heating or hot water included?	Yes
Externally mounted plant specified?	No
Speculative office refurbishment?	No
External lighting included?	Yes
Simple building?	No

Management

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Man 01 – Project brief and design

Stakeholder consultation

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The design team have met to identify roles and responsibilities, as well as contributions for each key phase of the project.

Prior to completion of the Concept Design Stage, all relevant third party stakeholders (e.g. local residents/businesses and end building user) will be consulted by the design team and it will be demonstrated that the outcomes of the consultation exercise have influenced the initial project brief and concept design. *Two of two credits targeted.*

Sustainability champion

The design team has confirmed that a BREEAM Accredited Professional (AP) will be involved to monitor and report progress against the established BREEAM targets by attending key project team meetings during all stages of the design and construction. *Two of two credits targeted.*

In total, four of four credits are targeted.

Man 02 – Life cycle cost and service life planning

Elemental life cycle cost (LCC)

1 of 4

The design team have confirmed that an elemental life cycle cost analysis will not be carried out at RIBA Stage 2 in line with the BREEAM requirements. *Zero of two credits assumed.*

Component level LCC plan

The design team have confirmed that a component level LCC will not be developed by the end of RIBA Stage 4 (for services, finishes and external spaces) in accordance with the BREEAM requirements. *Zero of one credit assumed.*

Capital cost reporting

The design team has confirmed that the capital cost for the building's refurbishment / fit out works (in £k/m²) will be reported. *One of one credit targeted.*

In total, one of four credits is targeted.

Management

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Man 03 – Construction site impacts

One credit (under Considerate Construction) mandatory for Excellent rating.

Timber (pre-requisite)

All timber is to be legally harvested and traded.

The pre-requisite requirements for this issue will be met.

4 of 6

Environmental management

The design team have confirmed they will appoint a principal contractor who operates an Environmental Management System, certified under ISO14001/EMAS or an equivalent standard, covering their main operations.

One of one credit targeted.

Sustainability champion (construction)

A sustainability champion will be appointed to monitor the project on site to ensure on-going compliance with the relevant sustainability performance criteria and BREEAM targets during the construction and handover stages.

One of one credit targeted.

Considerate construction

The contractor will be required to register the scheme under the Considerate Constructors Scheme (CCS) and will be committed to achieve at least 35 points, with a minimum of 7 points in each section.

Two of two credits targeted.

Monitoring of construction site impacts (energy and water)

The design team has confirmed that at present the contractor will not be required to monitor and record energy and water consumption data arising from the use of construction plant, equipment and site accommodation.

Zero of one credit target.

Monitoring of construction site impacts (transport)

The design team are unable to confirm at present whether the contractor will be required to monitor and record transport data resulting from delivery of the majority of construction materials to site and removal of construction waste from site.

Zero of one credit targeted.

In total, four of six credits are targeted.

Management

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Man 04 – Commissioning and handover

Criterion 9 (production of building user guide) mandatory for Excellent rating

Commissioning

3 of 4

A member of the design team will be appointed to monitor commissioning in line with best practice (CIBSE, BSRIA and Building Regulations), with a specialist commissioning agent appointed for any complex systems.

Two of two credits targeted.

Testing and inspecting of building fabric

The design team has confirmed that this credit will not be targeted at present; a thermographic survey will not be commissioned.

Zero of one credit targeted.

Handover

The production of a non-technical building user guide, in line with the BREEAM requirements, is planned. In addition, a training schedule will be prepared for building occupiers / facilities managers to aid handover.

One of one credit is targeted.

In total, three of four credits are targeted.

Man 05 – Aftercare

Where parts 2 and 3 are assessed one credit (seasonal commissioning) mandatory for Excellent rating.

Aftercare support

1 of 3

There will be resources in place to provide aftercare support to the building occupier including:

- A handover meeting
- On site facilities management training
- Initial aftercare support for at least the first month of occupation
- Longer aftercare support for the first year of occupation, should this be required.

In addition, the design team has confirmed that energy and water consumption data will be collected for at least 12 months after occupation, and aftercare support will be provided to all building occupiers.

One of one credit targeted.

Seasonal commissioning

The design team has not currently committed to undertake seasonal commissioning over the first 12 months of occupation in line with BREEAM requirements.

Zero of one credit targeted.

Post occupancy evaluation (POE)

The client has not currently committed to appointing a third party consultant to complete a post occupancy evaluation exercise one year after initial building occupation.

Zero of one credit assumed.

In total, one of three credits is targeted.

Health & Wellbeing

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Hea 01 – Visual comfort

Glare control

6 of 7

Blinds will be specified in relevant building areas (where computer screens or projectors are regularly used) to prevent disabling glare.

One of one credit assumed.

Daylighting

Daylighting calculations will be conducted to demonstrate that all occupied areas will achieve 'good practice' daylighting levels and illuminance criteria in line with BREEAM requirements.

Two of three credits assumed.

View out

The architect has confirmed that at least 95% of the floor area space in relevant building areas (office areas where close work will be undertaken) will be within 7m of a wall which has a window or permanent opening that provides an adequate view out.

Two of two credits targeted.

Internal and external lighting levels, zoning and controls

Internal and external lighting will be specified in line with the BREEAM criteria.

One of one credit targeted.

In total, six of seven credits are targeted.

Health & Wellbeing

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Hea 02 – Indoor air quality

Indoor air quality plan

2 of 5

An Indoor Air Quality Plan will not be developed in line with BREEAM requirements.

Zero of one credit targeted.

Ventilation

The scheme will meet fresh air rates in line with ventilation requirements, air quality sensors are provided. In addition, air intakes and extracts must be at least 10 metres apart and intakes 20 metres from sources of external pollution.

One of one credit targeted.

VOCs

The design team has confirmed that all key internal finishes will be specified with low VOC levels in line with BREEAM requirements. At present, no additional testing to measure formaldehyde concentration levels will be undertaken at post-construction.

One of two credits targeted.

VOC testing post-refurbishment

The design team has confirmed that VOC testing is not currently scheduled to take place post-refurbishment.

Zero of one credit targeted

Adaptability – potential for natural ventilation

It is unlikely that the openable window area will be equivalent to at least 5% of the gross internal floor area of each room/floor plate and that the whole development will have the potential for natural ventilation in line with BREEAM requirements.

Zero of one credit targeted.

In total, two of five credits targeted.

Health & Wellbeing

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Hea 04 – Thermal comfort

Thermal modelling in line with CIBSE AM11 will be undertaken for this refurbishment scheme, which will inform the temperature control strategy and zoning.

3 of 3

The thermal model will demonstrate that the thermal comfort criteria within CIBSE Guide A will be met for the projected climate change scenario.

Three of three credits targeted.

Hea 05 – Acoustic performance

Post-completion acoustic testing will be carried out by a suitably qualified acoustician to demonstrate that the acoustic requirements for sound insulation, indoor ambient noise levels and reverberations times have been met.

2 of 3

Two of three credits assumed.

Hea 06 – Safety and security

A suitably qualified security consultant from the local police will be consulted to ensure the principles of Secured by Design are implemented.

1 of 1

One of one credit targeted.

Energy

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Ene 01 – Reduction of CO₂ emissions

Six credits mandatory for Excellent rating
Ten credits mandatory for Outstanding rating

Preliminary energy modelling has been undertaken for the existing and proposed 4 of 15 buildings. Based on the building services and fabric specified, at least four of the available fifteen credits under this issue will be achieved.

Four of fifteen credits targeted.

Ene 02 – Energy monitoring

One credit is mandatory for Very Good, Excellent and Outstanding ratings.

Accessible, clearly labelled sub-meters will be provided to ensure that the energy 2 of 2 consumption of the following systems (where present) can be monitored separately:

- Space heating
- Domestic hot water heating
- Humidification
- Cooling
- Ventilation
- Pumps
- Lighting
- Small power
- Renewable or low carbon systems
- Controls
- Lifts
- Other major energy consuming systems

Additional sub-meters will be provided to ensure that each function area within the building will be able to be separately metered (office areas, café, main gallery spaces).

Two of two credits targeted.

Ene 03 – External lighting

The design team has confirmed that the average luminous efficacy of all external 1 of 1 light fittings will be greater than 60 luminaire lumens per circuit Watt. Furthermore, all external light fittings (with the exception of security lighting) will be automatically controlled to avoid daylight operation.

One of one credit targeted.

Energy

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Ene 04 – Low carbon design

Passive design analysis and free cooling

1 of 3

Passive design analysis (to establish opportunities for passive design solutions) has not been completed. In addition a free cooling strategy will not be implemented for this scheme.

Zero of two credits assumed.

Low carbon technologies

A low zero carbon feasibility study has been carried out and a local LZC technology (air source heat pumps) will be specified that results in a meaningful reduction (at least 5%) in energy demand or carbon dioxide emissions.

One of one credit targeted.

In total, one of three credits is targeted.

Ene 06 – Energy efficient transportation systems

An analysis of the transport demand and usage patterns for the building will be carried out to determine the optimum number and size of lifts. 3 of 3

The energy consumption will be calculated in accordance with BS EN ISO 25745 Energy performance of lifts, escalators and moving walks, Part 2: Energy calculation and classification for lifts (elevators), for one of the following:

- a) At least two types of system (for each lift type required)
- b) An arrangement of systems (e.g. hydraulic, traction, machine room-less lift (MRL))
- c) A system strategy which is 'fit for purpose'.

The transportation system with the lowest energy consumption will be specified.

In addition, energy efficient features will be specified for the lifts. This may include low energy lighting, a stand-by mode during off-peak and idle periods, and a drive controller capable of variable speed, variable-voltage, and variable-frequency (VVVF) control of the drive motor.

Three of three credits targeted.

Transport

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Tra 01 – Public transport accessibility	<p>The development is located within central London, in close proximity to a number of underground stations and bus stops. Full credits are assumed.</p> <p><i>Five of five credits targeted.</i></p>	5 of 5
Tra 02 – Proximity to amenities	<p>The development is located in central London within close proximity to local amenities (including food outlets, cash points and outdoor open spaces). Full credits are assumed.</p> <p><i>One of one credit targeted.</i></p>	1 of 1
Tra 03 – Cyclist facilities	<p>The development will not include BREEAM compliant cycle racks. The credits for 0 of 2 cycle storage and cyclist facilities are therefore not available.</p> <p><i>Zero of two credits targeted.</i></p>	0 of 2
Tra 04 – Maximum car parking capacity	<p>The proposed development does not include any car parking spaces.</p> <p><i>Two of two credits targeted.</i></p>	2 of 2
Tra 05 – Travel plan	<p>A site-specific travel plan will be developed as part of the feasibility and design stages, which will consider all types of travel relevant to the building type and users.</p> <p><i>One of one credit targeted.</i></p>	1 of 1

Water

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Wat 01 – Water consumption

Where water consuming plant or equipment is specified: one credit mandatory for Very Good and Excellent ratings.

The design team has confirmed that they will aim for a 25% improvement in water consumption (litres/person/day) compared to BREEAM's notional baseline performance.

2 of 5

Two of five credits targeted.

Wat 02 – Water monitoring

Where part 2 is being assessed: criterion 1 (installation of water meter on mains supply) is mandatory for Very Good and Excellent ratings.

The design team has confirmed that a pulsed water meter will be installed on the mains water supply to the building.

1 of 1

One of one credit targeted.

Wat 03 – Water leak detection and prevention

The design team has confirmed that a major leak detection system will be installed on the mains water supply within the development and between the building and the utilities water meter is installed, in line with BREEAM requirements.

2 of 2

Solenoid shut-off valves, linked to presence detectors, will be specified for all WC areas to minimise the risk of water leaks and wastage from sanitary fillings.

Two of two credits targeted.

Wat 04 – Water Efficient Equipment

The design team has confirmed that there are no unregulated water demands present.

N/A

Credit filtered out of assessment.

Materials

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Mat 01 – Life cycle impacts

The design team will utilise a life cycle assessment (LCA) tool, such as the Green Guide to Specification, to reduce the life cycle impacts of new building materials.

2 of 6

Two of six credits targeted.

Mat 03 – Responsible sourcing of materials

Criterion 1 (sourcing of timber) is mandatory for all ratings.

Pre-requisite

The design team has confirmed that all timber used on the project will be sourced in accordance with the UK Government's Timber Procurement Policy. *The pre-requisite requirements for this issue will be met.*

1 of 4

Sustainable Procurement Plan

The design team are unable to confirm at present whether the principal contractor will operate a sustainable procurement plan. *Zero of one credit targeted.*

Responsible Sourcing of Materials

It is confirmed that key building elements will be sourced responsibly (certified under BES 6001 or ISO 14001) in line with BREEAM requirements. *One of three credits targeted.*

In total, one of four credits is targeted.

Mat 04 – Insulation

The design team has confirmed that any insulation specified and installed for the external walls, ground floor, roof and building services will be A or A+ rated under the Green Guide to Specification.

1 of 1

One of one credit targeted.

Mat 05 – Designing for Robustness

Measures will be specified to protect vulnerable internal and external areas of the building from the effects of pedestrian and vehicle movement.

1 of 1

One of one credit assumed.

Mat 06 – Material efficiency

The design team has confirmed that the credit for material efficiency will not be targeted at present.

0 of 1

Zero of one credit assumed.

Waste

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Wst 01 – Construction site waste management

Pre-refurbishment audit

2 of 7

A pre-refurbishment waste audit (in line with BREEAM requirements) will not be undertaken. *Zero of one credit targeted.*

Reuse and direct recycling of materials

It is unlikely that materials specified for the scheme will be re-used (on or off site) or sent back to the manufacturer. *Zero of two credits assumed.*

Resource efficiency

A resource management plan will be provided covering the waste arisings from the refurbishment, with the aim of minimising waste and recording and reporting accurate data on waste arisings.

The non-hazardous waste relating to on-site activities (and dedicated off-site manufacture or fabrication processes) will be no more than 11.3m³ (3.5 tonnes) per 100m² of floor area. *One of three credits targeted.*

Waste diverted from landfill

At least 85% (by volume) or 90% (tonnage), of refurbishment waste will be diverted from landfill.

Furthermore, at least 90% (by volume) or 95% (by tonnage) of demolition and strip-out waste will be diverted from landfill. *One of one credit targeted.*

In total, two of seven credits targeted.

Wst 02 – Recycled aggregates

At present recycled aggregates will not total more than 25% of the total aggregates used in the building.

0 of 1

Zero of one credit targeted.

Wst 03 – Operational waste

One credit mandatory for Excellent rating.

The design team has confirmed that the project will not target the credit for operation waste.

0 of 1

Zero of one credit targeted.

Waste

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Wst 05 – Adaptation to climate change

A climate change adaptation strategy will not be carried out for this development.

0 of 1

Zero of one credit targeted.

Wst 06 – Functional adaptability

A building-specific functional adaptation strategy will be undertaken including recommendations for measures to be incorporated to facilitate future adaptation

1 of 1

One of one credit assumed.

Land Use and Ecology

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LE 02 - Protection of ecological features

There are no existing features of ecological value within and surrounding the refurbishment zone, therefore no ecological features will be damaged during site works.

1 of 1

One of one credit targeted.

LE 04 – Enhancing site ecology

A suitably qualified ecologist will be appointed by the client to advise on enhancing the ecology of the site. The design team will implement all recommendations made by the ecologist regarding the enhancement of site ecology.

1 of 1

One of one credit targeted.

Pollution

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Pol 01 – Impact of refrigerants

Impact of refrigerants

1 of 3

Refrigerants specified within the scheme will have Direct Effect Life Cycle CO₂ equivalent emissions of less than 1000 kgCO_{2e} per kW of cooling/heating capacity.

Leak detection

The credit for refrigerant leak detection will not be targeted at present.

One of three credits targeted.

Pol 02 – NO_x emissions

The system for meeting the heating and hot water demand of the building will have NO_x emissions (measured on a dry basis at 0% excess CO₂) of less than 40mg/kWh.

3 of 3

Three of three credits assumed.

Pol 03 – Surface water run-off

Flood risk

3 of 5

The site is situated in a low flood risk zone and will meet the BREEAM requirements for avoidance of flooding (Checklist 1).

Two of two credits targeted.

Surface water run-off

There will be no increase in impermeable surfaces as a result of the refurbishment works.

One of two credits targeted.

Minimising watercourse pollution

This credit is not targeted at present; the project will not be able to achieve zero discharge to sewers or watercourses for rainfall depths of up to 5mm.

Zero of one credit targeted.

In total three of five credits are targeted.

Pol 04 – Reduction of night time light pollution

All external lighting (including safety and security lighting) will be designed and installed in compliance with ILP Guidance Notes.

1 of 1

One of one credit targeted.