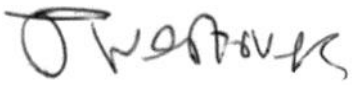
The Shed
Regis Road, NW5

Sustainable Design and Construction Statement and BREEAM New Refurbishment Pre-Assessment

Contents

Document Control

Author	Date	Signature
JW	08.05.17	

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1.0 Introduction

1.1 This report has been prepared to accompany a pre-planning application for the refurbishment and extension of an existing building in Regis Road, London. The proposal involves the regeneration of the existing building and the construction of a new third floor.

1.2 This report takes an overarching look at the sustainable features proposed for the scheme and how those measures will reduce its environmental impact in line with the policy requirements of the Local Authority and the London Plan.

1.3 Sustainable Design and Construction is a broad topic and this report looks at several areas in detail. It is divided into two main areas of focus. The first is the design element and the second, sustainable construction practices.

1.4 The primary areas of design which are looked at are:

- Passive Design
    - Cycle storage
    - Ventilation and overheating
    - Thermal mass
- Water consumption
- Surface water and flooding
- Transport

1.5 The areas of Sustainable Construction included in this report are:

- Site Waste Management
- Pollution
- Considerate Constructors
- Consumption monitoring

1.6 A BREEAM Pre-Assessment has been undertaken against the 'UK Refurbishment Fit-Out 2014' scheme. This was completed in consultation with the scheme architects. A score of 70% is required to achieve the required score of **'Excellent'** and 71.6% of the credits have currently been targeted. Although achieving an 'Excellent' rating will be challenging overall, it would be possible to increase this score by, for example, strengthening the building's energy performance or through the greater use of responsibly sourced materials.

2.0 Policy Context

2.1 Planning policy in the UK is guided by the overarching National Planning Policy Framework (NPPF)

2.2 The key statement in the NPPF refers to a "presumption in favour of sustainable development"

2.3 There is ongoing debate and analysis into the meaning and implications of this, since "sustainability" is a broad term, but for the purposes of this report, it is assumed that environmental sustainability and low ecological impact are to be given significant weight in the planning process.

2.4 The Local Authority, Camden, uses the requirements of the latest London Plan and its own CPG 3 planning guidance for its sustainability policies.

2.5 Through discussion with the Architect, it has been established that the requirements here are:

- Newly refurbished building to achieve a BREEAM 'Excellent' rating. (A BREEAM New Refurbishment Pre-Assessment has been included within this report).

2.6 The Local Authority and London Plan also require consideration of other sustainability measures such as those included in this report. Thus, this report is intended to demonstrate how the developer proposes to meet the aspirations of Camden Council.

2.7 At this stage this is dealt with in relatively broad terms, although it is intended that an M&E design as well as further detail on specific elements will be evolved post-planning in advance of procurement and construction.

3.0 Passive Design Measures

3.1 The design team will incorporate features to reduce the environmental impact of the scheme wherever possible.

3.2 Passive design is a method of using the features of the building to reduce the energy consumption and environmental impact, without the use of mechanical or electrical plant.

3.3 These techniques include solar orientation, natural ventilation, dual aspect design, thermal mass, air tightness, and fenestration design.

3.4 Some of these techniques are not possible on all sites, but the design team for this project have endeavoured to include them where feasible.

3.5 According the Camden's CPG 3 guidance, all developments should aim for at least 10% of the total value of the materials used to be derived from recycled and reused sources. It is expected that this will be the case here.

Thermal Mass

3.6 High thermal mass has been implemented as part of the detailed design stage in accordance with Camden Council's CPG3 document.

3.7 This benefits the building by keeping the structure at a more stable temperature, evening out the peaks and troughs of day time and night time variations.

3.8 A building with high thermal mass will take longer to heat up and longer to cool down, which generally has the effect of reducing the energy required to keep it at an acceptable temperature.

3.9 However, while this technique is often used in hotter climates, it is quite common to use lightweight construction (timber frame or similar) in cooler or temperate climates where the fluctuation in temperature between night and day is far less pronounced.

3.10 Other considerations, such as build time, cost and material efficiency may sway the design team to a lightweight approach instead.

Cycle Storage

3.11 The development will be provided with 35 cycle spaces, which goes beyond the London Plan requirement of one space per 90sqm.

3.12 These spaces will be secure and accessible only to the building's users with sufficient space to make them easy to use, encouraging cycling in lieu of car journeys.

3.13 The benefits of providing secure cycle storage for residents are well proven in reducing car ownership and increasing journeys made by bicycle.

4.0 Internal Water Consumption

4.1 It is assumed that the new refurbished building will have predicted internal water consumption of at least 40% above the baseline defined by the BREEAM Technical Guidance.

4.2 The assumptions used for sanitary goods are as follows:

Basin Taps and Kitchen taps:	4l/min at 3bar
Showers:	8l/min at 3bar
WCs:	Dual flush - 4/2.6l

At this stage, no Rainwater or Greywater Harvesting has been calculated. This will be considered at RIBA Stage E (Technical Design Stage).

5.0 Surface Water and Flooding

5.1 New developments should seek to mitigate against the future effects of climate change and so far as possible, reduce water runoff from the site and buildings to alleviate the problems of flooding.

5.2 At the very least, developers should aim to make the situation after construction no worse than it was before. This site is currently occupied entirely by hardstanding or buildings and so is 100% impermeable.

5.3 The new development cannot therefore make this worse and any attempt to attenuate or reduce run off will be an improvement.

5.4 There are several methods to deal with surface water runoff which can be used in isolation or in combination. Some are dependent on the building design and others are dependent on soil conditions.

Street View of Site as Existing - © Google

5.5 The design team have confirmed that they will actively consider the potential for rainwater harvesting at the Technical Design Stage, for use internally to help with both the potable water consumption and also further reducing the surface run-off.

5.6 The SUDS hierarchy will also be used to determine the most suitable solution for the site. This is in accordance with the policies of the local authority.

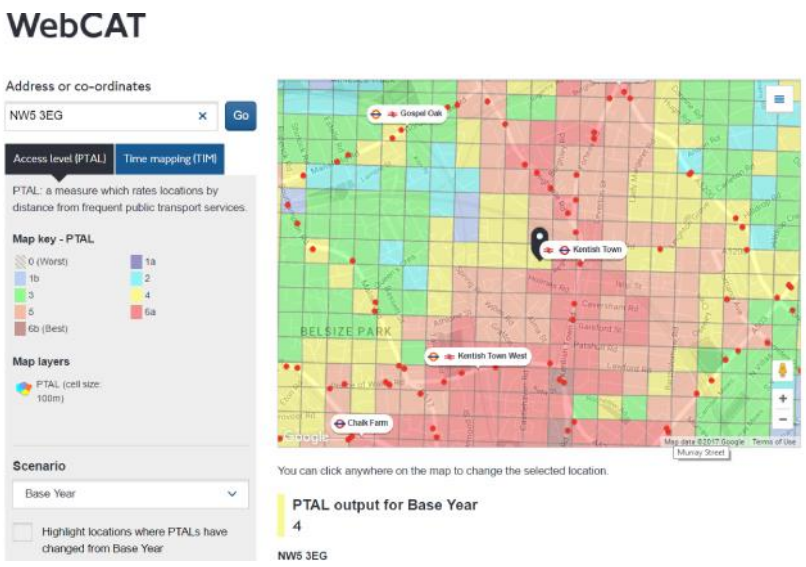
6.0 Transport

6.1 Transport arrangements are a key consideration for any new development. In London, the accessibility of public transport to a site is of high importance to both developers and end-users.

6.2 This can be assessed using the PTAL (Public Transport Access Levels) system. This site has a rating of 4, where 0 is the worst score and 6 is the best. 4 is regarded as a "good" score.

6.3 This indicates that the site has relatively short walking distances to stations and bus stops and also that the services available locally are frequent.

6.4 Secure and accessible cycle storage is also to be provided to help encourage the future occupants to make more journeys by bicycle and reduce car ownership.



Site PTAL Rating - © TfL

7.0 Sustainable Construction Methods

7.1 It is clearly important that a building should be designed to reduce its environmental impact so far as reasonably practical and the measures proposed for doing this are detailed in this report and the accompanying BREEAM Pre-Assessment.

7.2 However the method by which the building is constructed is also important and the building process itself can be very resource intensive.

7.3 Whilst the specific measures to be taken to ensure this is also mitigated will be the responsibility of the contractor once building work commences, the section sets out suitable measures that should be considered and adopted where appropriate.

Site Waste Management

7.4 The build will be operated under a Site Waste Management Plan, which although it is not a planning requirement for minor developments, it is recognised as good practise. The SWMP will identify the key sources of construction waste, methods for diverting this waste from landfill, indentify those responsible for doing so and monitor performance.

7.5 There are numerous tools available for doing this, including online facilities such as BRE's SmartWaste system.

7.6 This allows the contractor to log all waste-related activities and report on performance at all stages of the build.

7.7 It also allows monitoring and reporting of energy and water use on site (see "Consumption Monitoring", below) and analysis of the carbon impact for transportation and material usage.

7.8 Although Site Waste Management Plans are no longer a legal requirement, they offer significant environmental benefits and also cost savings, by encouraging waste reduction across the construction team.

Pollution

7.9 The contractor will have in place policies on site to minimise air and water pollution from site-based activities.

7.10 Air and water pollution on site can have a detrimental impact on the environment and on the health of local residents

7.11 Examples of the clauses that such policies should contain are:

- All surface water must discharge into a surface water drain
- All foul water must discharge into the foul water drain
- All oil and diesel drums must be stored on an impervious base with oil-tight bund with no drainage outlet. All drill pipes, fill pipes and sight gauges must also be stored on this bund.
- Leaking or empty oil drums must be removed from site and disposed of via a licensed waste disposal contractor
- A stand pipe and hose is to be made available at all times on site to damp down arising dust from the demolition process. Particular attention must be paid to damping down procedures during periods of dry and hot weather.
- All skips must be covered with a suitable cover i.e. tarpaulin or plastic dust sheets.
- Any lorries removing waste from site must be suitably covered prior to leaving site.
- A wheel wash will be provided where practical.

Considerate Constructors

7.12 The Considerate Constructors scheme exists to encourage good practice within the construction industry, reduce its environmental impact and forge better relations with neighbouring residents.

7.13 The developer should be encouraged to sign up to this protocol and aim for a score which exceeds best-practice.

7.14 This will ensure the site:

- Has a good outward appearance
- Respects the community in which it exists
- Minimizes security and safety risks for neighbours
- Values its workforce and provides high welfare standards
- Reduces its environmental impact where possible

Consumption monitoring

7.15 In line with the ideals of the Site Waste Management Plan the developer will monitor resources consumption on site in line with industry KPI benchmarks.

7.16 Electricity and water usage will be monitored on site and targets set.

7.17 The results of the meter readings will then be compared to the set benchmark targets so that feedback can be given to the site staff.

7.18 This will have the effect of encouraging responsible resource usage and consumption reduction where possible.

Appendix 1

BREEAM New Refurbishment
Pre-Assessment.

The Shed
Regis Road, NW5
On behalf of: Augustus Land

BREEAM UK New Refurbishment 2014 – Offices

Pre-Assessment Report

Author: **Robert Diamond**
Checked by: **Ollie Westover**

Date: **8th May 2017**

BREEAM Pre-Assessment Report
The Shed
Regis Road, NW5
Date: 8th May 2017

TABLE OF CONTENTS

BREEAM Pre-Assessment Report
The Shed
Regis Road, NW5
Date: 8th May 2017

1.0 Introduction

1.1 What is BREEAM?

BREEAM (Building Research Establishment's Environmental Assessment Method) is the world's leading and most widely used environmental assessment method for buildings, with over 115,000 buildings certified and nearly 700,000 registered. 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. Credits are awarded in ten categories according to performance. These credits are then added together to produce a single overall score on a scale of Pass, Good, Very Good, Excellent and Outstanding. The operation of BREEAM is overseen by an independent Sustainability Board, representing a wide cross-section of construction industry stakeholders.

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

Objectives of BREEAM:

To provide market recognition to low environmental impact buildings
To ensure best environmental practice is incorporated in buildings
To set criteria and standards surpassing those required by regulations and challenge the market to provide innovative solutions that minimise the environmental impact of buildings
To raise the awareness of owners, occupants, designers and operators of the benefits of buildings with a reduced impact on the environment
To allow organisations to demonstrate progress towards corporate environmental objectives

1.2 BREEAM Credibility

Technical Credibility

BREEAM is tried and tested, both in terms of its robust technical standards and its commercial delivery, and expert advice (based on scientific evidence) continues to inform almost every issue in BREEAM.

In the UK there are over 115,000 buildings certified and over 700,000 homes and buildings currently registered for assessment. BREEAM can be used to assess any building type anywhere in the world.

Robust Technical Standards

BREEAM has always used objective criteria to recognise good environmental performance:

Issues for assessment are agreed to be significant, and offer worthwhile reductions in environmental impact
Issues must be assessable at the relevant stage in the building's life
Performance levels are based on scientific evidence wherever possible

Performance levels must exceed demands of law and regulations and encourage innovation
Improvements encouraged by BREEAM are achievable and cost effective

Where specific targets cannot be set using hard science or research, sensible practical measures are recommended to minimise environmental impact or enhance the environment of the building and its users.

Commercial Credibility

Assessments are undertaken by organisations and individuals trained and licensed by BRE Global (Assessors). This ensures:

Competition in the market for assessment services
Engagement with the whole of the industry
Assessors work to the same quality standards (monitored by BRE)

BRE Global has gained UKAS (United Kingdom Accreditation Service) accreditation for all its BREEAM schemes. This means that its management of BREEAM is monitored and overseen by UKAS.

2.0 Scoring and Rating

This section of the report explains how an assessed building's certified BREEAM rating is calculated.

There are a number of elements that determine the BREEAM rating; these are as follows:

BREEAM rating benchmarks
BREEAM environmental weightings
Minimum BREEAM standards

2.1 Rating Benchmarks

The rating benchmarks for the 2014 version of BREEAM are outlined in table 1 below:

Table 1 BREEAM 2014 rating benchmarks

BREEAM Rating	% score
UNCLASSIFIED	<30
PASS	≥30
GOOD	≥45
V GOOD	≥55
EXCELLENT	≥70
OUTSTANDING*	≥85

* Please note: there are additional criteria for achieving a BREEAM Outstanding rating.

2.2 Environmental section weightings

Table 2 below outlines the environmental weightings for the nine BREEAM sections.

Table 2 BREEAM 2014 environmental weightings

BREEAM Section	Fully fitted out (%)	Weighting (%)	Shell and core only (%)
Management	12	12.5	11
Health & Wellbeing	15	10	10.5
Energy	15	14.5	15
Transport	9	11.5	10
Water	7	4	7.5
Materials	13.5	17.5	14.5
Waste	8.5	11	9.5
Land Use & Ecology	10	13	11
Pollution	10	6	11

BREEAM Section	Fully fitted out (%)	Weighting (%)	Shell and core only (%)
Total	100	100	100
Innovation	10	10	10

2.3 Minimum standards

To achieve a BREEAM rating, the minimum percentage score must be achieved (as outlined in table 1) and the minimum standards (i.e. number of credits achieved) applicable to that rating level (below) complied with.

Table 3 Minimum BREEAM standards

BREEAM issue	Minimum standards by BREEAM rating level				
	PASS	GOOD	VERY GOOD	EXCELLENT	OUTSTANDING
Man 03: Responsible construction practices				One credit (Considerate Construction)	Two credits (Considerate Construction)
Man 04: Commissioning and handover	None	None	None	Criterion 9 (Building User Guide)	Criterion 9 (Building User Guide)
Man 5: Aftercare	None	None	None	Parts 2 and 3 only: one credit (Seasonal commissioning)	Parts 2 and 3 only: one credit (Seasonal commissioning)
Ene 01: Reduction of energy use and carbon emissions	None	None	None	Parts 1, 2, 3 and 4 (full assessments): Six credits, varies for other assessment types	Parts 1, 2, 3 and 4 (full assessments): Ten credits, varies for other assessment types
Ene 02: Energy monitoring	None	None	Parts 2, 3 and 4: One credit (first sub-metering credit)	Parts 2, 3 and 4: One credit (first sub-metering credit)	Parts 2, 3 and 4: One credit (first sub-metering credit)
Wat 01: Water consumption	None	One credit (where appli-cable)	One credit (where appli-cable)	One credit (where appli-cable)	Two credits (where appli-cable)
Wat 02: Water monitoring	None	Part 2: Criterion 1 only	Part 2: Criterion 1 only	Part 2: Criterion 1 only	Part 2: Criterion 1 only
Mat 03: Responsible sourcing materials	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only

BREEAM Pre-Assessment Report
The Shed
Regis Road, NW5
Date: 8th May 2017

BREEAM issue	Minimum standards by BREEAM rating level				
	PASS	GOOD	VERY GOOD	EXCELLENT	OUTSTANDING
Wst 01: Construction waste management	None	None	None	None	One credit
Wst 03: Operational waste	None	None	None	One credit	One credit

3.0 Pre-Assessment Evaluation

Certain credits are not targeted, simply by nature of the building and offer no benefit or are not cost effective to the Design Team. The overall score is indicative of what could be achieved, providing all the information promised is provided, and is fully in accordance with the BREEAM requirements.

4.0 Results

The following percentages in each category were achieved at Pre-Assessment Stage:

Management	76.19%	Excellent
Health & Wellbeing	68.42%	Very Good
Energy	55.00%	Very Good
Transport	100.00%	Outstanding
Water	75.00%	Excellent
Materials	53.85%	Good
Waste	63.64%	Very Good
Land use & Ecology	100.00%	Outstanding
Pollution	75.00%	Excellent
Innovation/Exemplary	20.00%	

The pre-assessment has been undertaken, which achieves a '**Excellent** rating and a score of **71.59%.**

5.0 Analysis

The pre-assessment within the appendix shows the predicted credits for the project.

The pre-assessment should be read in conjunction with the BREEAM 'UK Refurbishment and Fit-Out 2014' manual for a fuller understanding of the actual requirements and commitments.

MAN 1 – Project Brief and Design
3 out of 4 credits
Assessment Criteria
Credits are awarded for a stakeholder consultant covering a project delivery and relevant third parties. Credits are also awarded for sustainability champion appointed to facilitate the setting, monitoring and achievement of BREEAM performance target(s) for the Project.
Pre Assessment Evaluation
3 credits have been targeted, and it is a requirement that these credits are targeted and carried out an early stage, RIBA stage 1-2. Consultation with the stakeholder(s) will be carried out. A BREEAM AP has been appointed. Consultation with a third party has not been carried out.

MAN 2 – Life Cycle Cost and Service Life Planning
0 out of 4 credits
Assessment Criteria
Credits are awarded for recognising and encouraging the use of life cycle costings and service life planning and the sharing of data to raise awareness and understanding.
Pre Assessment Evaluation
This report is required to be commissioned at RIBA stage 2. The report will cover the whole life valve from investment and promote economic sustainability. The report will include an elemental life cycle cost analysis and component level LCC over multiple cash flow scenarios. For this project the works will not be required, and therefore the credits will not be awarded as it does not represent value for money.

MAN 3 – Responsible Construction Practices
6 out of 6 credits
Assessment Criteria
Credits are awarded for the principal contractor demonstrates sound environmental management practices and consideration for neighbours across their activities on-site. Credits are also awarded for site related energy, water and transport impacts, which are monitored and reported to ensure ongoing compliance during the construction, handover and close out stages and to improve awareness and understanding for future projects.
Pre Assessment Evaluation
The team will include within their prelims the responsible construction practices to be undertaken. The contractor appointed will need to be EMS Certified, and will responsibly source all timber used for hoarding, will monitor site impacts awill comply with considerable constructors scheme and achieve a score greater than 35.5.

MAN 4 – Commissioning and Handover
4 out of 4 credits
Assessment Criteria
Credits are awarded for the schedule of commissioning including optimal timescales and appropriate testing and commissioning of all building services systems and building fabric in line with best practice. Credits are awarded for the inspection, testing, identifying and

rectifying defects via an appropriate method. Credits can also be awarded for providing a non-technical building user guide and user/operator training times appropriately around handover and proposed occupation.

Pre Assessment Evaluation

A Building User Guide will be produced by the Contractor. All commissioning certificates and testing documents will be provided as well the handover training documents. A Training Schedule will be provided for the end users by the team. A Thermographic survey and report will be carried out.

MAN 5 – Aftercare

4 out of 4 credits

Assessment Criteria

Credits are awarded for the schedule of commissioning including optimal timescales and appropriate testing and commissioning of all building services systems and building fabric in line with best practice. Credits are awarded for the inspection, testing, identifying and rectifying defects via an appropriate method. Credits can also be awarded for providing a non-technical building user guide and user/operator training times appropriately around handover and proposed occupation.

Pre Assessment Evaluation

Aftercare support will be provided for the first 12 months (3 years for an exemplary credit – has been targeted), seasonal commissioning will be carried out, and a post occupancy evaluation will be undertaken.

HEA 1 – Visual Comfort

4 out of 6 credits

Assessment Criteria

Credits are awarded for the potential to disable glare that has been designed out of all relevant building areas. Credits are awarded for good practice daylighting levels that have been met and the floor space in relevant building areas has an adequate view out to reduce eye strain and provide a link to the outside.

Pre Assessment Evaluation

The team have confirmed that the appropriate areas will be fitted with blinds. Daylighting calculations and reports will not be carried out as the plans have been reviewed by the assessor and the room depths are too great to achieve the uniformity ratio to comply with meeting the daylight factor. The review of the drawings confirms that the view out will be achieved. Internal and external lighting levels will be met.

HEA 2 – Indoor Air Quality

3 out of 4

Assessment Criteria

Credits are awarded for minimizing sources or air pollution through careful design specification and planning.

Further, a credit can also be awarded for a building ventilation strategy that is designed to be flexible and adaptable to potential future building occupant needs and climatic scenarios.

Pre Assessment Evaluation

A ventilation strategy meeting BREEAM requirements will be carried out as it is deemed suitable for a project of this type.

An Indoor Air Plan is to be undertaken, surveyed and tested, and the levels of ventilation adhered to, to achieve these credits. The VOC levels will be specified and tested.

BREEAM Pre-Assessment Report
The Shed
Regis Road, NW5
Date: 8th May 2017

HEA 4 – Thermal Comfort
3 out of 3 credits
Assessment Criteria
Credits are awarded for a thermal model carried out to appropriate standards. Credits are awarded for project climate change scenario(s) considered as part of the thermal model.
Pre Assessment Evaluation
A thermal model analysis report will be undertaken, and an adaption to climate change report will be undertaken as it is deemed suitable for a project of this type. Thermal zoning and controls will be BREEAM compliant.

HEA 5 – Acoustic Performance
2 out of 2 credits
Assessment Criteria
Credits are awarded for where the building meets appropriate acoustic performance standards and testing requirements in terms of: sound insulation, indoor ambient noise level and reverberation times.
Pre Assessment Evaluation
An acoustician will be appointed to carry out testing and reports to meet the required BREEAM criteria for indoor ambient noise level and reverberation times.

HEA 6 – Safety and Security
1 out of 1 credits
Assessment Criteria
Credits are awarded for security needs that are understood and taken into account in the design and specification.
Pre Assessment Evaluation
The architect will consult with an ALO/CPDA at RIBA stage 2, to seek advice and guidance on the security measures of the building.

ENE 1 – Reduction of Energy Use and Carbon Emissions
8 out of 12 credits
Assessment Criteria
Credits are awarded for recognizing improvements in the energy performance of the building above national building regulations in relation to heating and cooling energy demand, primary energy consumption and carbon dioxide emissions. Credits are also awarded for encouraging steps taken to reduce energy demand through building design and systems specification.
Pre Assessment Evaluation
The SBEM will need to be provided to demonstrate these credits, preliminary calculations suggest 8 credits may be achievable.

ENE 2 – Energy Monitoring
2 out of 2 credits
Assessment Criteria
Credits are awarded for energy metering systems that are installed to enable energy consumption to be assigned to end uses.
Pre Assessment Evaluation
Sub metering will be provided for heating, hot water, cooling small power and lighting. The meters will be fitted with pulsed outputs, or connected to the BMS

BREEAM Pre-Assessment Report
The Shed
Regis Road, NW5
Date: 8th May 2017

ENE 4 – Low Carbon Design
1 out of 3 credits
Assessment Criteria
Credits are awarded for the analysis of the proposed building design/development is undertaken to identify opportunities for and encourage the adoption of passive design solutions, including free cooling. Credits are also awarded for a feasibility study that has been carried out to establish the most appropriate on-site/near-site low or zero carbon (LCZ) energy source(s) for the building/development and is specified.
Pre Assessment Evaluation
A low and zero carbon report will be provided by an energy assessor at stage 2.
The building cannot achieve passive design solutions and therefore this has been ruled out and not sought.

TRA 1 – Public Transport Accessibility
3 out of 3 credits
Assessment Criteria
Credits are awarded for the recognition for development in proximity to good public transport networks, thereby helping to reduce transport-related pollution and congestion.
Pre Assessment Evaluation
Due to the location of this building it is deemed feasible to assume a maximum accessibility index.

TRA 2 – Proximity to Amenities
1 out of 1 credits
Assessment Criteria
Credits are awarded for the recognition of developments in close proximity of and accessible to, local amenities which are likely to be frequently required and used by building occupants.
Pre Assessment Evaluation
Due to the location of the building, all local amenities are accessible.

TRA 3 – Cyclist Facilities
2 out of 2 credits
Assessment Criteria
Credits are awarded for the provision of compliant cycle storage spaces and facilities to encourage safe and healthy cycling.
Pre Assessment Evaluation
Cycle storage places will be provided, lighting, covered in a secure place, with the cycle facilities either floor or wall fixed. There is sufficient space to provide cycle facilities with lockers and changing areas containing benching with hooks and ventilation, therefore the second credit is achievable.

TRA 5 – Travel Plan
1 out of 1 credits
Assessment Criteria
Credits are awarded for attempts to promote sustainable reductions in transport burdens by undertaking a site specific travel assessment/statement and developing a travel plan based on the needs of the particular site.
Pre Assessment Evaluation
A travel consultant has been appointed to produce a compliant Travel Plan.

BREEAM Pre-Assessment Report
The Shed
Regis Road, NW5
Date: 8th May 2017

WAT 1 – Water Consumption
3 out of 5 credits
Assessment Criteria
Credits are awarded for reducing the demand for potable water through the provision of efficient sanity fitting, rainwater collection and water recycling systems.
Pre Assessment Evaluation
These credits have been assumed based on the facts there are WC facilities with dual flush toilets and with flow restrictors to the taps. A baseline improvement of 40% is achievable. There are no water recycling systems proposed.

WAT 2 – Water Monitoring
1 out of 1 credits
Assessment Criteria
Credits are awarded for the specification of a water meter/s on the mains water supply to encourage water consumption management and monitoring to reduce the impacts of inefficiencies and leakage.
Pre Assessment Evaluation
A pulsed water meter will be installed on the incoming mains and within the site boundary feeding this building

WAT 3 – Water Leak Detection
2 out of 2 credits
Assessment Criteria
Credits are awarded for the recognition of leak detection systems capable of detecting a major water leak on the mains water supply. Credits can also be awarded for flow control devices that regulate the supply of water to each WC area/facility to reduce water wastage.
Pre Assessment Evaluation
A leak detection system will be fitted to the incoming mains with an audible alarm. Solenoid valves will be fitted to the WC areas to prevent leaks.

MAT 1 – Life Cycle Impacts
3 out of 4 credits
Assessment Criteria
Credits are awarded for reductions in the building environmental life cycle impacts through assessment of the main building elements.
Pre Assessment Evaluation
This is for walls, floors, roof and floor finishes, A+ or A rated materials required to be specified.

MAT 3 – Responsible sourcing of materials
2 out of 4 credits
Assessment Criteria
Credits are awarded for the materials that are sourced in accordance with a sustainable procurement plan. Credits are also awarded for key building materials that are reasonably sourced to reduce environmental and socio-economic impacts.
Pre Assessment Evaluation
The contractor will provide a sustainable procurement plan, for use of sustainable and environmentally friendly materials.
The Team have decided to target 1 responsible sourcing credit for materials.

MAT 4 – Insulation
1 out of 1 credits
Assessment Criteria

Credits are awarded for the recognition of the use of thermal insulation which has a low embodied environmental impact relative to its thermal properties.

Pre Assessment Evaluation

All insulation used will be A* or A rated and chain of custody certificates for responsible sourcing will be provided.

MAT 5 – Designing for Durability and Resilience

1 out of 1 credits

Assessment Criteria

Credits are awarded for the building which incorporates measures to reduce impacts associated with damage and wear-and-tear. Credits are also awarded for relevant building elements that incorporate appropriate design and specification measures to limit material degradation due to environmental factors.

Pre Assessment Evaluation

The team have confirmed that all internal and external durability measures will be incorporated into the Design. These can be such things as – Hard wearing and easy clean floor finishes, protective external bollards, raised kerbs, kick plates, door stops or corner protectors.

MAT 6 – Material Efficiency

0 out of 1 credits

Assessment Criteria

Credits are awarded for the opportunities and measures that have been identified and taken to optimise the use of materials.

Pre Assessment Evaluation

The Architect will not produce a report showing the materials and elements used to demonstrate compliance.

WST 1 – Construction Waste Management

5 out of 6 credits

Assessment Criteria

Credits are awarded for the development of a construction resource management plan and reducing construction waste related to on-site construction and off-site manufacture/fabrication. Credits are also awarded for diverting non-hazardous construction (on-site and dedicated off-site manufacture/fabrication) demolition and excavation waste (where applicable) generated by the project from landfill.

Pre Assessment Evaluation

A pre-refurbishment audit will be carried out. A Site Waste Management Plan showing figures and measures of waste directed away from landfill will be produced. The plan must contain how to deal with hazardous and non-hazardous waste and recycling. The Contractor is to target less than $5m^3$ per $100m^2$ of floor area of recycling.

WST 2 – Recycled Aggregates

1 out of 1 credits

Assessment Criteria

Credits are awarded for the percentage levels of recycled or secondary aggregate specified against set targets.

Pre Assessment Evaluation

Due to the site location it is deemed possible for the contractors to obtain recycled aggregates within the required distance, or to use 80% of recycled aggregates from any demolition works.

WST 3 – Operational Waste

1 out of 1 credits
Assessment Criteria
Credits are awarded for the provision of sustainable space and facilities to allow for segregation and storage of operational recyclable waste volumes generated by the assessed building/unit, its occupant(s) and activities.
Pre Assessment Evaluation
A bin storage facility will be provided with recycling bins labelled appropriately for use.

WST 5 – Adaption to Climate Change
0 out of 2 credits
Assessment Criteria
Credits are awarded for the encouragement, consideration and implementation of measures to mitigate the impact of more extreme weather conditions arising from climate change over the life span of the building.
Pre Assessment Evaluation
This report was required at RIBA stage 2, and thus the credits are withheld as the project is past this stage.

WST 6 – Functional Adaptability
0 out of 1 credits
Assessment Criteria
Credits are awarded for the encouragement, consideration and implementation of measures to accommodate future changes to the use of the building and its systems over its life span.
Pre Assessment Evaluation
The Building has been designed fit for purpose for the Clients brief, and does not incorporate changes and adaptation to change the building. Need to have been carried out at RIBA Stage 2. The credit is withheld.

LE 2 – Ecological Value of Site and Protection of Ecological Features
1 out of 1 credits
Assessment Criteria
Credits are awarded for the recognition of the uses of sites of “low ecological value”, and the protection of existing features prior to and during site operations.
Pre Assessment Evaluation
The land is of low ecological value and thus no protection of any ecological features is required.

LE 4 – Enhancing site Ecology
1 out of 1 credits
Assessment Criteria
Credits are awarded for the recognition of steps taken to enhance site ecology through the advice of a suitably qualified ecologist.
Pre Assessment Evaluation
An Ecologist is going to be appointed and carry out survey and report and recommendations will be provided to ensure the site has a small improvement in Ecological value of between 0 and 6 plant species richness, therefore, a small positive change.

POL 1 Impacts of Refrigerants
0 out of 3
Assessment Criteria
Credits are awarded for the avoidance reduction of the impact of refrigerants through specification and leak prevention/detection.

Pre Assessment Evaluation
Refrigerants are to be used in the building therefore these credits are not achievable.

POL 2 – NO_x Emissions
3 out of 3 credits
Assessment Criteria
Credits are awarded for the reduction in emissions of nitrous-oxides (NO_x) arising from the building's space and water heating systems.
Pre Assessment Evaluation
Heating and hot water will be provided by a low NOx boiler.

POL 3 – Surface Water Runoff
5 out of 5 credits
Assessment Criteria
Credits are awarded for the development of sites with a low probability of flooding where the design minimises the impact of flooding through careful master planning. Credits are also awarded for surface water run-off which is managed to be no worse that the pre-development scenario and watercourse pollution prevention systems are in place.
Pre Assessment Evaluation
An FRA is required, due to the location it is assumed that the zone will be 1 – Low probability of flooding. Calculations will be produced to demonstrate that the surface water run off volume and will not be greater than that of the existing and SUDS will be provided to minimise water course pollution.

POL 4 – Noise Attenuation
1 out of 1 credit
Assessment Criteria
Credits are awarded for lower plant noise than background noise,
Pre Assessment Evaluation
An acoustician will be appointed to test and establish noise levels and make recommendations.

BREEAM Pre-Assessment Report
The Shed
Regis Road, NW5
Date: 8th May 2017

APPENDIX

BRE Assessment Tool

Summary

BREEAM Pre-Assessment Report
The Shed
Regis Road, NW5
Date: 8th May 2017

Pre-assessment: The Shed (xxx)

BREEAM Rating

	Credits available	Credits achieved	% Credits achieved	Weighting	Category score
Man	21.0	16.0	76.19%	15.18%	11.56%
Hea	19.0	13.0	68.42%	16.38%	11.20%
Ene	20.0	11.0	55.00%	14.56%	8.00%
Tra	7.0	7.0	100.00%	5.90%	5.90%
Wat	8.0	6.0	75.00%	6.74%	5.05%
Mat	13.0	7.0	53.85%	15.81%	8.51%
Wst	11.0	7.0	63.64%	8.69%	5.53%
Le	2.0	2.0	100.00%	5.06%	5.05%
Pol	12.0	9.0	75.00%	11.67%	8.75%
Inn	10.0	2.0	20.00%	10.00%	2.00%
Total	123.0	80.0	65.04%	-	71.59%
Rating	-	-	-	-	Excellent

Performance by environmental category