mechanical and electrical consulting engineers

Project No. 1
Revision: P02- Final
Date: July 2016

BREEAM UK REFURBISHMENT & FIT-OUT 2014 PRE-ASSESSMENT

GREATER LONDON HOUSE – ASOS INFILL OFFICES EXTENSION

Lazari Investments Ltd

GLP Consulting Engineers Ltd

Company Registration No. 2570207
Telephone: 0161 681 7070
Facsimile: 0161 219 1968
www.glpartnership.co.uk

Client

Lazari Investments Ltd
Greater London House
Hampstead Road
London
NW1 7QX

COPYRIGHT ©

GLP QA SYSTEM

Authorisation By: Paul Siddall

Verification By:

Project Engineer: Paul Siddall.

Licensed Assessor for BREEAM.

Index

1.0 EXECUTIVE SUMMARY

GLP Consulting Ltd has been commissioned to carry out a Preliminary (Design Stage) BREEAM assessment of Greater London House, London.

This report details the predicted performance of the proposed development against the BREEAM UK Refurbishment & Fit-out 2014.

A breakdown describing each credit and the member of the design team who is responsible for ensuring that the credit is implemented in the final BREEAM assessment is given. Other information provided within this breakdown is a list of the evidence that will be required in order to allow the awarding of the credit in the final assessment. At this stage of the assessment, not all evidence is currently available and therefore ongoing review and design development will be required.

This report details the current preliminary assessment and a targeted score.

The development has a mandatory planning requirement to achieve “Very Good”. The current design proposals achieve a score of 67.12%

2.0 THE DESIGN TEAM

The members of design team consulted for this Preliminary BREEAM UK Refurbishment & Fit-out 2014. are as follows:

Client/Tenant	Lazari Investments Limited/ASOS
Architect	Forme UK
Services Engineers including lifts	GLP Consulting Engineers Ltd
Project Managers/Cost Consultants	Jones Lang LaSalle Limited
Structural Engineers	The Morton Partnership Ltd
Planning Consultant	Gerald Eve LLP

As the formal assessment progresses, inputs will be required from various design team members, who will be responsible for providing information and pieces of evidence for the formal assessment.

Evidence is generally required from the developer/project manager, contractor/construction manager, M&E engineers, architect, cost consultant as well as a transport consultant and ecologist where applicable.

3.0 INTRODUCTION

GLP Consulting Ltd has been commissioned to carry out a BREEAM (**BRE E**nvironmental **A**ssessment **M**ethod) BREEAM UK Refurbishment & Fit-out 2014.

This report presents a 'Preliminary Assessment', which precedes the formal assessment. The aim of this preliminary assessment is to define the criteria for the design to meet in order to achieve the current likely BREEAM rating.

A breakdown of each criterion is provided, along with a brief description, and responsibility for implementation is allocated to a member of the design team, who is responsible for ensuring the criteria are met. It is imperative therefore that each design team member reviews the items assigned to them and provide any comments.

A list of the evidences that will be required for the credits to be awarded in the final assessment is provided to the design team during the full Design & Procurement and Post Construction assessment stages.

It is important, at this stage, that the design team are aware of the specific requirements of each credit and ensure that these can me met and implemented within the design of the development. The requirements of the credits are very specific and can often be overlooked by the design team. Therefore it is important at this stage that workshops are conducted between the design team and assessor to discuss the specific details of the credits.

It should be noted that under the BREEAM UK Refurbishment & Fit-out 2014 , a Post Construction assessment is required prior to BRE issuing the final BREEAM certificate. This will require the assessor to carry out a site visit and the design team to provide evidences showing that the commitments made at design stage have been implemented in the development.

Site Description

The proposed new infill offices extension development will be constructed to the existing internal open atrium area of Greater London House on Hampstead Road. The development will be sited internally within the open atrium at upper ground, 1st and 2nd floor levels with ancillary facilities at lower ground.

Greater London House is located in the London Borough of Camden and is located just opposite Mornington Crescent Underground station. It is an island site comprising of an entire block that sits between Hampstead Road and Mornington Crescent. The following Outline Specification has been prepared with the view that the office element will be let to existing tenants, ASOS.

The building currently comprises of 333,077 sq ft of office space (NIA) and it is intended that this be increased to 370,145 sq ft (NIA) to allow for further expansion of the ASOS tenants space at Ground, First and Second floor levels. It is intended that the additional space is created through development of the existing courtyard area over three new floor levels to the North and South courtyards. The new courtyard infills will consist of contiguous open plan spaces at Ground floor level with galleried space at first and second floor levels to allow natural light penetration through each level via a new glazed roof light. The courtyard extensions will be a new and independent structure to the existing building. Aesthetically, the new building will be sympathetic to the style of the 1930's architecture of the existing courtyard but will be clad in a modern insulated, glazed facade system which will comply with current building regulations. The new roof will incorporate a custom designed, double glazed roof light, the glazing will incorporate an interstitial graphic supported on a painted, fabricated steel sub-frame this addition will enhance the interior spaces below. The roof light support steelwork will also function as a structure to facilitate lighting to the atrium voids and will provide some solar shading to the internal spaces.

The new areas will be interlinked to the existing by creating access openings through the façade. The new raised access floors will be transitioned with existing floor levels within these openings. Existing rendered courtyard facades will be cleaned and service risers will be modified, clad to improve their visual impact. Two new exposed ductwork service routes will provide fresh air and extract to the North and South extensions. these will be fed from plant to be located at 5th floor roof level.

BREEAM 'Very Good' Rating

As advised within the body of the report the rating achieved is 67.12% which given the Construction,complexities,construction and constraints of this development is a creditable achievement. The Energy section of BREEAM also exceeds Camden's benchmark of 60% with this realising 65% ratio of Credits achieved.

A 'Scheme Classification' was submitted to BREEAM to clarify if the project could be assessed and under which scheme. BREEAM confirmed has the project has much reduced assessable elements then it would fall under BREEAM Refurbishment & Fit-out 2014 Method and not the New Construction 2014 Method.

The reason excellent cannot be achieved is the physical construction of the building ie glazing and lack of party walls and therefore equates to a reduced Part L calculation which feeds directly into BREEAM Energy section.

There are limited sustainable materials to assess, also no additional WC facilities, no boundary protection or ecological features all of which BREEAM scores and rates. PV cells have been added as sustainable technology which contributes to the final rating.

Camden's Development Policy DP 22 2010 states :

Paragraph 22.13 – If feasible at the time, we will expect non-residential development to achieve a BREEAM rating of 'excellent' from 2016 so that such schemes make an increasing contribution to environmental sustainability, in line with that expected from housing development.

We therefore believe that this project which BRE (BREEAM administrators) have defined as "fit-out works" and part L2B defines as an "extension" based on the New build works being less than 25% of the useful floor area of the existing building, differs vastly from a standard new build extension. With no party/boundary walls and no natural division from the existing building the outcome of Excellent is 'Not feasible' as the above clause wording.

4.0 OBJECTIVE

The objective of this initial pre-assessment report is to identify at this early stage a route for achieving the aim of a minimum BREEAM (Building Research Establishment's Environmental Assessment Method) rating of VERY GOOD (>55%).

5.0 BREEAM

BREEAM is a voluntary scheme that aims to quantify and reduce the environmental burdens of buildings by rewarding those designs that take positive steps to minimise their environmental impacts.

Projects are assessed using a system of credits. The credits are grouped within the following categories:

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

The assessment process results in a report covering the issues assessed together with a formal certification giving a rating on a scale of PASS, GOOD, VERY GOOD, EXCELLENT and OUTSTANDING.BREEAM Scoring.

Environmental weightings are fundamental to any building environmental assessment method as they provide a means of defining, and therefore ranking, the relative impact of environmental issues.
BREEAM uses an explicit weighting system derived from a combination of consensus based weightings and ranking by a panel of experts. The outputs from this exercise are then used to determine the relative value of the environmental sections used in BREEAM and their contribution to the overall BREEAM score.

This weighting system is defined in greater detail within the BRE Global Core Process Standard (BES 5301) and it's supporting procedural documents. These form part of the over-arching BREEAM Standard and the Code for a Sustainable Built Environment. The same ranking of impacts used in BREEAM underpins the scoring mechanisms in the BRE Green Guide to Specification and the BRE Environmental Profiling Method for construction materials.

BREEAM Environmental section weightings are as follows:

Issue Category	No. of Credits Available	% Weighting
Management	12.0	11.53%
Health & Wellbeing	14.0	16.05%
Energy	20.0	19.36%
Transport	6.0	6.72%
Water	1.0	1.12%
Materials	13.0	21.01%
Waste	8.0	8.40%
Land Use & Ecology	2.0	6.72%
Pollution	7,0	9.05%
Innovation	10.0	10.00%

There are a number of elements that determine the overall performance of a new construction project assessed using BREEAM, these are as follows:

1. The BREEAM rating level benchmarks
2. The minimum BREEAM standards
3. The environmental section weightings
4. The BREEAM assessment issues and credits

How these elements combine to produce a BREEAM rating for a new building is summarised on the following pages. This is followed by a description and example describing the methodology for calculating a rating.

The BREEAM rating benchmarks for projects assessed using the 2014 version of BREEAM UK New Construction are as follows:

BREEAM Rating	% Score
Outstanding	≥ 85
Excellent	≥ 70
Very good	≥ 55
Good	≥ 45
Pass	≥ 30
Unclassified	< 30

To maintain a flexible system BREEAM adopts a ‘balanced score-card’ approach to the assessment and rating of building performance. This means that, to achieve a particular level of performance the majority of BREEAM credits can be traded, i.e. non-compliance in one area can be off-set through compliance in another to achieve the target BREEAM rating.

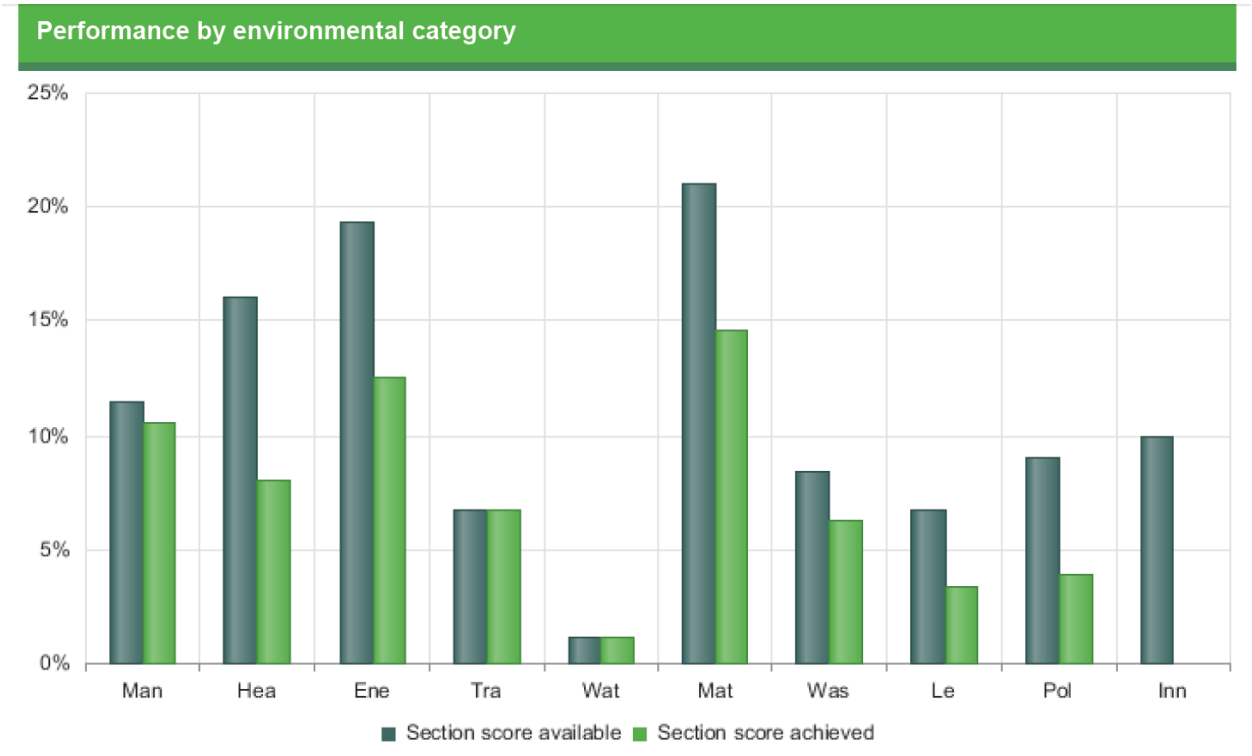
However, to ensure that performance against fundamental environmental issues is not overlooked in pursuit of a particular rating, BREEAM sets minimum standards of performance in key areas e.g. energy, water, waste etc. It is important to bear in mind that these are minimum acceptable levels of performance and, in that respect they should not necessarily be viewed as levels that are representative of best practice for a BREEAM rating level.

6.0 BREEAM RATING

The table below summarises the likely credits to be awarded to achieve a VERY GOOD rating. As the design develops, further work will be carried out with the design team to provide guidance on meeting the BREEAM criteria as well as targeting possible further credits that will enhance the sustainability of the design to ensure the target rating is achieved. It is likely that the final building will incorporate a mix of these credits as the design develops.

	No. credits available	No. credits Achieved	% credits achieved	Section Weighting	Section Score
Management	12.0	11.0	91.66%	11.53%	10.56%
Health & Wellbeing	14.0	7.0	50.00%	16.05%	8.02%
Energy	20.0	13.0	65.00%	19.36%	12.58%
Transport	6.0	6.0	100.00%	6.72%	6.72%
Water	1.0	1.0	100.00%	1.12%	1.12%
Materials	13.0	9.0	69.23%	21.01%	14.55%
Waste	8.0	6.0	75.00%	8.40%	6.30%
Land Use & Ecology	2.0	1.0	50.00%	6.72%	3.36%
Pollution	7,0	3.0	42.85%	9.05%	3.88%
Innovation	10.0	0.0	0.00%	10.00%	0.00%
Total					**67.12%**

The table above shows that at this stage, the development could achieve a score of 67.12% which is a rating of VERY GOOD and we would hope is in keeping with Camden Council's Aspirations.



CONCLUSION

This report details the performance of the proposed new extension at Greater London House, London, against the BREEAM Refurbishment & Fit-out 2014 Method.

An initial review of the scheme has been undertaken with the design team and client in relation to the BREEAM assessment and the likely credits that could be achieved.

The assumptions made have been based on previous experience with similar developments in regards to the attainment of certain credits and the level of sustainable commitments made from this development.

At this stage, it is envisaged that the development will achieve a score in excess of 55% and obtain a VERY GOOD rating.

Disclaimer

Copyright