

# Abbey Hall, Reading

## BREEAM Pre Assessment

20th March 2019



## Focus Offices

### NOTTINGHAM

Focus House  
Millennium Way West  
Phoenix Business Park  
Nottingham  
NG8 6AS  
Tel: 0115 976 5050  
E-mail: [enquiries@focus-consultants.com](mailto:enquiries@focus-consultants.com)  
Website: [www.focus-consultants.co.uk](http://www.focus-consultants.co.uk)

### LEICESTER

Units 41 and 42  
Business Box  
3 Oswin Road  
Braunstone  
Leicester  
LE3 1HR  
Tel: 0116 275 8315  
E-mail: [leicesterenquiries@focus-consultants.com](mailto:leicesterenquiries@focus-consultants.com)  
Website: [www.focus-consultants.co.uk](http://www.focus-consultants.co.uk)

### NEWARK

Newark Beacon  
Beacon Hill Office Park  
Cafferata Way  
Newark  
Nottinghamshire  
NG24 2TN  
Tel: 01636 233 117  
E-mail: [newarkenquiries@focus-consultants.com](mailto:newarkenquiries@focus-consultants.com)  
Website: [www.focus-consultants.co.uk](http://www.focus-consultants.co.uk)

### BOSTON

Focus House  
Resolution Close  
Endeavour Park  
Boston  
Lincolnshire  
PE21 7TT  
Tel: 01205 355 207  
E-mail: [bostonenquiries@focus-consultants.com](mailto:bostonenquiries@focus-consultants.com)  
Website: [www.focus-consultants.co.uk](http://www.focus-consultants.co.uk)

### LONDON

605 Elizabeth House  
39 York Road  
London  
SE1 7NQ  
Tel: 0203 096 9717  
E-mail: [londonenquiries@focus-consultants.com](mailto:londonenquiries@focus-consultants.com)  
Website: [www.focus-consultants.co.uk](http://www.focus-consultants.co.uk)

**Client:** Surplus Property Investments Ltd  
c/o CORE Consult  
69 Derwent Drive  
Maidenhead  
SL6 6LE

**Client Lead:** Howard Cooke  
**Tel:** 01628 732639  
**Email:** [hc@core-consult.co.uk](mailto:hc@core-consult.co.uk)

**Prepared By:** Focus Consultants  
Units 41 and 42 Business Box  
3 Oswin Road  
Braunstone  
Leicester  
LE3 1HR

**Focus Contact:** Nathan Adams  
**Tel:** 0116 275 8315  
**Email:** [nathan.adams@focus-consultants.com](mailto:nathan.adams@focus-consultants.com)

**Project:** Abbey Hall, Reading

**Document Title:** BREEAM Pre Assessment

**Date:** 20th March 2019  
**Issue Nr:** 2

**Authorised by:** Jason Redfearn  
**Signature:**



# CONTENTS

|                                                           | <b>Page Nr</b> |
|-----------------------------------------------------------|----------------|
| 1.0 <u>Introduction</u>                                   | 2              |
| 2.0 <u>BREEAM Domestic Refurbishment 2014 Methodology</u> | 3              |
| 3.0 <u>Review and Options</u>                             | 5              |
| 4.0 <u>Credit Summary</u>                                 | 7              |

## 1.0 Introduction

### 1.1 Purpose of the Report

Focus Consultants were instructed by Howard Cooke of CORE Consult to undertake a BREEAM evaluation of the proposed change of use and refurbishment of a restaurant's first floor kitchen, storage and WC facilities into four apartments.

This initial overview and report has been commissioned to evaluate the scheme for compliance with BREEAM Domestic Refurbishment methodology and is based upon a meeting held on the 28th February 2018, at which a review of the relevant BREEAM credits was undertaken.

### 1.2 Key Aims

The report has three key purposes:

- 1 Following a BREEAM review meeting, assess the correct BREEAM methodology for the scheme.
- 2 Review the scheme against each of the BREEAM credits and confirm the possible score which could be achieved.
- 3 Highlight what will be required of the project team based upon the agreed strategy.

The report comprises a brief overview of the scheme, and a summary of the BREEAM score achieved, based on an indicative review.

Where appropriate, assumptions have been stated and recommendations are provided for ways in which the BREEAM ratings can be achieved or increased.

This report uses the following BRE documentation to support the assessment:

- 1 BREEAM Domestic Refurbishment 2014 version 2.2 produced by the BRE Limited
- 2 BREEAM Pre Assessment Tool provided by the BRE.

### 1.3 Required Standards

The BREEAM rating required is 'Very Good', which is equivalent to a score of 55%. However, this rating will only be achieved where the minimum standards set within BREEAM are met. Those relevant to this scheme can be found in the table below:

| Table 1.0                                          |                                                                                                             |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Credit                                             | Criteria                                                                                                    |
| ENE 02 Energy Efficiency Rating Post-Refurbishment | Energy efficiency rating of refurbishment needs to achieve a minimum EER of 65 or above                     |
| WAT 01 Internal Water Use                          | Calculated water consumption, needs to achieve between 107-118 litres/person/day                            |
| HEA 05 Ventilation                                 | Ventilation to be installed that meets the requirements of Section 5 of Building Regulations Part F in full |
| HEA 06 Safety                                      | Fire and Carbon Monoxide detection and alarm systems to be installed                                        |
| MAT 01 Environmental Impact of Materials           | All timber and timber-based products used to be legally harvested and traded timber                         |

## 2.0 BREEAM New Construction 2014 Methodology

### 2.1 Methodology

This BREEAM assessment utilises a BREEAM Domestic Refurbishment 2014 Pre Assessment Tool to evaluate the building's performance under the 'Small Scale' criteria.

### 2.2 Environmental Sections

BREEAM Domestic Refurbishment 2014 is split into seven assessment sections or categories, stretching across a broad range of environmental issues, summarised in the table below.

| Category           | Objectives                                                                                                                                                                                                                                                                                                                             |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Management         | This category covers issues that aim to ensure the home owner is able to operate their home efficiently and effectively as well as being able to live in a home that is safe and secure. Ecological protection is also highlighted within this category in attempt to preserve the features already established on refurbishment sites |
| Health & Wellbeing | This category encourages the increased comfort, health and safety of building occupants, visitors and others within the vicinity.                                                                                                                                                                                                      |
| Energy             | This category encourages the specification and design of energy efficient building solutions, systems and equipment that support the sustainable use of energy in the refurbishment                                                                                                                                                    |
| Water              | This category encourages sustainable water use in the operation of the refurbishment and its site by identifying means of reducing potable water consumption over the life time of the building and minimising losses through leakage.                                                                                                 |
| Materials          | This category encourages projects to focus on the procurement of materials that are sourced in a responsible way and have a low embodied impact over their life, including extraction, processing and manufacture and recycling.                                                                                                       |
| Waste              | This category encourages the sustainable management (and reuse where feasible) of construction and operational waste, in addition to the provision of recyclable waste and compostable waste facilities.                                                                                                                               |
| Pollution          | This category aims to reduce the refurbishment's Nitrogen Oxide emissions through specifying low emitting heating and hot water systems. It also reviews the flood risk of the development and overall surface water run-off produced as a result of the refurbishment process                                                         |

### 2.3 Assessment Process

The BREEAM assessment is split into two stages, with a Design Stage Assessment (DSA) carried out on the intentions of the project, and a final, Post Construction Review (PCR) carried out at project completion. Once the DSA has been compiled, submitted and interim certified, it will be necessary for the BREEAM Assessor to make a site inspection in order to view the as built specification for compliance. The PCR assessment will then be carried out, which will again be submitted and certified by the BRE, providing the final certified rating for the project.

For the purposes of the submission to the BRE, the assessor will ask the project team to provide supporting evidence. The supporting information is required in order to achieve the appropriate credits. The assessor will not be able to award credits without the necessary supporting documentation and evidence being

Where the project is carrying out a Post Construction Stage (PCS) assessment only, it will still be necessary to provide the DSA supporting evidence required for a two stage assessment, in order to confirm full compliance with the BREEAM criteria.

## 2.4 Weighting

Within this report credits are awarded throughout based upon the guidance manual. However a weighting is applied to each credit within the final assessment tool. Therefore, the credit displayed against the issue is not always the actual value to the overall rating. The credit summary within Section 4.0 details the approximate credit weightings based on the BREEAM Pre-Assessment tool.

The BRE Scoring and Reporting Tool is used to accurately predict the final scheme rating. Please note that the BRE will change the assessment tools periodically and this can alter the individual assessment of credits and therefore the final rating.

### 3.0 Review and Options

#### 3.1 Summary Score

Based upon the BREEAM pre assessment meeting held and the credit summary, the scheme achieves an anticipated score of 49.93 which equates to a rating of 'Good'. Additional optional credits have been provided within the next section for review where targeted credits may not be achieved.

#### 3.2 Optional Credits

Recommendations where possible are provided for improvement within each of the criteria under BREEAM assessment. Should the project team feel a credit targeted within the credit summary cannot be achieved, or wish to look at alternatives/credits to increase the score or rating, the table below details credits that could be considered for inclusion within the assessment.

| Credit                                                                     | Comment                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MAN 02 Responsible Construction Practices                                  | To achieve credits here, the contractor would need to sign the scheme up to Considerate Constructors or an alternative                                                                                                                                                            |
| MAN 06 Project Management                                                  | Additional credit can be achieved where there is evidence of full project team involvement in decisions, a project implementation plan and an initiation meeting to assign responsibilities                                                                                       |
| HEA 01 Daylighting                                                         | One credit achieved where there is a neutral impact on daylighting levels. Two credits are achieved where improved levels of daylighting are provided to kitchens, living rooms, dining rooms and studies as a result of the refurbishment                                        |
| HEA 02 Sound Insulation                                                    | Additional credits could be achieved where sound insulation results are improved to 3dB (3 credits) or 5dB (4 credits) above building regulation requirements                                                                                                                     |
| HEA 04 Inclusive Design                                                    | Appoint an accessibility specialist consultant to advise on making the apartments accessible to partial Lifetime Homes compliance (more information can be provided if credits are of interest)                                                                                   |
| HEA 06 Safety                                                              | Supply new fire alarms and carbon monoxide detectors to each dwelling. If rewiring taking place then both must be powered by mains electricity                                                                                                                                    |
| ENE 01, 02 & 03 Improvement in Energy Efficiency and Primary Energy Demand | For these energy credit sections, credits have been assumed conservatively. To increase credits here, firstly, SAP assessment will be required and, secondly, further energy efficiency improvements may be required such as more insulation and more efficient building services |
| ENE 04 Renewable Technologies                                              | Specify renewable or low carbon energy technologies to achieve up to two credits                                                                                                                                                                                                  |
| ENE 05 Energy Labelled White Goods                                         | One credit achieved where new fridges and freezers have A+ energy ratings. The second credit is awarded for washing machines with A++ and dishwashers with A+ ratings                                                                                                             |
| ENE 06 Drying Space                                                        | Install at least 4m of permanent drying line within each apartment                                                                                                                                                                                                                |

| Table 3.0 (cont.)               |                                                                                                                                                                                                                                                                                             |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Credit                          | Comment                                                                                                                                                                                                                                                                                     |
| ENE 09 Cycle Storage            | One further credit could be awarded where additional cycle storage is provided in line with the requirements<br>Studios or 1 bedroom dwellings - 1 cycle space per dwelling<br>2 or 3 bedroom dwellings - 2 cycle spaces per dwelling<br>4 bedrooms and above - 4 cycle spaces per dwelling |
| WAT 01 Water Consumption        | Additional half credit could be achieved where water consumption is further reduced to <107 litres/person/day                                                                                                                                                                               |
| POL 01 Nitrogen Oxide Emissions | Additional credit could be achieved where the heating and hot water system specified emits <40mg/kWh                                                                                                                                                                                        |
| POL 03 Flooding                 | Commission a flood risk assessment. If the flood risk is 'low' then two credits can be achieved                                                                                                                                                                                             |

## 4.0 Credit Summary

| Credit Issue        |                                                   | Credits Available | Credits Sought | Section Total | Total Available for Section | Approx Weighted Value of Each Credit | Contribution to Final Score (%) | Credit Requirements                                                                                                                                                       |
|---------------------|---------------------------------------------------|-------------------|----------------|---------------|-----------------------------|--------------------------------------|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MANAGEMENT          |                                                   |                   |                |               |                             |                                      |                                 |                                                                                                                                                                           |
| MAN 1               | Home User Guide                                   | 3                 | 3              | 7             | 11                          | 1.09                                 | 7.64                            | 3 credits for a provision of home user guide to occupants containing the required contents as per the BREEAM checklist                                                    |
| MAN 2               | Responsible Construction Practices                | 2                 | 0              |               |                             |                                      |                                 | Optional credits                                                                                                                                                          |
| MAN 3               | Construction Site Impacts                         | 1                 | 1              |               |                             |                                      |                                 | Contractor must do two of: record site CO2 emissions, record site water consumption, 80% of site timber is responsibly sourced, have an environmental materials statement |
| MAN 4               | Security                                          | 2                 | 1              |               |                             |                                      |                                 | Credit is for best practice security levels for retained external doors/windows & ensuring new windows and doors are certified to PAS 24                                  |
| MAN 5               | Protection and enhancemnet of ecological features | 1                 | 1              |               |                             |                                      |                                 | Credit awarded by default for no features of ecological value                                                                                                             |
| MAN 6               | Project Management                                | 2                 | 1              |               |                             |                                      |                                 | Credit awarded for conducting a handover meeting and providing aftercare to the occupants                                                                                 |
| HEALTH & WELL BEING |                                                   |                   |                |               |                             |                                      |                                 |                                                                                                                                                                           |
| HEA 1               | Daylighting                                       | 2                 | 0              | 5             | 12                          | 1.42                                 | 7.08                            | Optional credits                                                                                                                                                          |
| HEA 2               | Sound Insulation                                  | 4                 | 2              |               |                             |                                      |                                 | Credits awarded are for meeting Part E compliance; requires testing by professional acoustician                                                                           |
| HEA 3               | Volatile Organic Compounds                        | 1                 | 1              |               |                             |                                      |                                 | Credit awarded for specifying materials that avoid the use of VOCs, and meet European Standards and Testing requirements                                                  |
| HEA 4               | Inclusive Design                                  | 2                 | 0              |               |                             |                                      |                                 | Optional credits                                                                                                                                                          |
| HEA 5               | Ventilation                                       | 2                 | 2              |               |                             |                                      |                                 | Credits awarded for installation of a whole house ventilation system that goes beyond the requirements of Part F                                                          |
| HEA 6               | Safety                                            | 1                 | 0              |               |                             |                                      |                                 | Optional credits                                                                                                                                                          |
| ENERGY              |                                                   |                   |                |               |                             |                                      |                                 |                                                                                                                                                                           |
| ENE 1               | Improvement in Energy Efficiency Rating           | 6                 | 2              | 12            | 29                          | 1.48                                 | 17.79                           | Credits awarded on a sliding scale through improved energy efficiency of the dwellings                                                                                    |
| ENE 2               | Energy Efficiency Rating Post-Refurbishment       | 4                 | 2              |               |                             |                                      |                                 | Credits awarded based on final energy efficiency rating post-refurbishment                                                                                                |
| ENE 3               | Primary Energy Demand                             | 7                 | 2              |               |                             |                                      |                                 | Credits awarded on a sliding scale based on primary energy demand; higher credits achieved where demand is lower                                                          |
| ENE 4               | Renewable Technologies                            | 2                 | 0              |               |                             |                                      |                                 | Optional credits                                                                                                                                                          |
| ENE 5               | Energy Labelled White Goods                       | 2                 | 0              |               |                             |                                      |                                 | Optional credits                                                                                                                                                          |
| ENE 6               | Drying Space                                      | 1                 | 0              |               |                             |                                      |                                 | Optional credit                                                                                                                                                           |
| ENE 7               | Lighting                                          | 2                 | 2              |               |                             |                                      |                                 | Credits awarded through the installation of energy efficient internal and external lighting                                                                               |
| ENE 8               | Energy Display Devices                            | 2                 | 2              |               |                             |                                      |                                 | 2 credits awarded for provision of an energy display device which displays both electricity and primary heating fuel data                                                 |
| ENE 9               | Cycle Storage                                     | 2                 | 1              |               |                             |                                      |                                 | Credit awarded on the basis of one cycle storage space per two dwellings (1 bed apartments) and one space for the 2 bed apartment                                         |
| ENE 10              | Home Office                                       | 1                 | 1              |               |                             |                                      |                                 | Credit awarded where provision of home office space is supplied. This requires two double power sockets and a data point per home office                                  |
| WATER               |                                                   |                   |                |               |                             |                                      |                                 |                                                                                                                                                                           |
| WAT 1               | Water Consumption                                 | 3                 | 2              | 4             | 5                           | 2.20                                 | 8.80                            | 2 credits awarded based on the installation of low water consumption sanitaryware fittings that achieve less than 118 litres/person/day                                   |
| WAT 2               | Water Monitoring                                  | 1                 | 1              |               |                             |                                      |                                 | Credit awarded through the provision of a rainwater collection system of sufficient size                                                                                  |
| WAT 3               | Water Leak Detection and Prevention               | 1                 | 1              |               |                             |                                      |                                 | Achieved through installation of an appropriate water meter measuring usage of mains potable water                                                                        |
|                     |                                                   |                   |                |               |                             |                                      |                                 |                                                                                                                                                                           |

| Credit Issue           |                                     | Credits Available | Credits Sought | Section Total | Total Available for Section | Approx Weighted Value of Each Credit | Contribution to Final Score (%) | Credit Requirements                                                                                                                                                                                               |
|------------------------|-------------------------------------|-------------------|----------------|---------------|-----------------------------|--------------------------------------|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MATERIALS              |                                     |                   |                |               |                             |                                      |                                 |                                                                                                                                                                                                                   |
| MAT 1                  | Environmental Impact of Materials   | 25                | 19             | 31            | 48                          | 0.17                                 | 5.17                            | Higher credits achieved where elements are left in-situ or receive little refurbishment. Fewer credits are achieved for brand new elements or highly changed elements as embodied impacts of materials are higher |
| MAT 2                  | Responsible Sourcing of Materials   | 15                | 4              |               |                             |                                      |                                 | Credits achieved where materials sourced are from suppliers with responsible sourcing certification in place                                                                                                      |
| MAT 3                  | Insulation                          | 8                 | 8              |               |                             |                                      |                                 | Credits achieved where insulation products installed achieve a high 'insulation index'. This is based on thermal conductivity and sustainable manufacture of materials                                            |
| WASTE                  |                                     |                   |                |               |                             |                                      |                                 |                                                                                                                                                                                                                   |
| WAS 1                  | Household Waste                     | 2                 | 1              | 2             | 5                           | 0.60                                 | 1.20                            | Credit awarded through the provision of recycling storage facilities in apartments                                                                                                                                |
| WAS 2                  | Refurbishment Site Waste Management | 3                 | 1              |               |                             |                                      |                                 | Credit awarded for the implementation of a site waste management plan                                                                                                                                             |
| POLLUTION              |                                     |                   |                |               |                             |                                      |                                 |                                                                                                                                                                                                                   |
| POL 1                  | Nitrogen Oxide Emissions            | 3                 | 2              | 3             | 8                           | 0.75                                 | 2.25                            | Credits awarded for the installation of a low NOx emission space heating and hot water system; maximum of 70mg/kWh NOx required for 2 credits                                                                     |
| POL 2                  | Surface Water Run-Off               | 3                 | 1              |               |                             |                                      |                                 | Credit awarded for a neutral impact on surface water run-off levels from pre-refurbishment levels                                                                                                                 |
| POL 3                  | Flooding                            | 2                 | 0              |               |                             |                                      |                                 | Optional credits                                                                                                                                                                                                  |
| PROJECTED BREEAM SCORE |                                     |                   |                |               |                             |                                      | 49.93                           |                                                                                                                                                                                                                   |