

BREEAM Principles

Issue Date: 28 October 2005

Doc Ref: BP Rev 01

BREEAM Principles

1.0 Purpose of Document

This document sets out the University's requirements in incorporating sustainable construction principles into the design of all its Capital Projects.

2.0 The University and BREEAM

- The University is committed to reducing its environmental impact and has adopted a policy with key targets to reduce carbon dioxide emissions, water use and waste (for policy details see http://www.bristol.ac.uk/environment/policy/env_policy.pdf). Within the policy, a key objective is to introduce sustainable construction principles to all new built, extensions and refurbishments. To help achieve this objective and the wider policy targets, the University will use the Building Research Establishments Environmental Assessment Method (BREEAM) when building or refurbishing buildings.
- The aim is to achieve an Excellent rating on all new builds and extensions and very good on all refurbishments. Particular focus and effort should be made to achieve high scores on Energy, Water, Transport, Health, Recyclable Storage and Construction Impact Management credits. Most of the assessments at the University will be on a bespoke basis.

3.0 Implementation

BREEAM is to be considered throughout the project life cycle and is to be a continual consideration throughout the design process; with the following Deliverables at Stage Ends:

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| Stage 0 | <ul style="list-style-type: none">- Introduce/present principles and reasons for BREEAM activities by EEMU to the Executive and Project Board |
| End Stage 1
(Concept Design) | <ul style="list-style-type: none">1.1 – Preliminary team meeting to explain general design concepts to BRE and BREEAM Assessor.1.2 – BRE and BREEAM Assessor will develop full criteria for the design team to use within this and all stages. The design team will have input into modifying the criteria before they are set.1.3 – High level design decisions made and fixed (e.g. building frame and orientation produced by the design team at this point.1.4 – Preliminary BREEAM Report produced by the design team. This should include a preliminary assessment of BREEAM rating of the current design, costed option studies (including life cycle costs) for sustainable solutions1.5 – Team workshop for design team to present preliminary BREEAM report to have input from University EEMU/BREEAM Assessor.- EEMU participation in VM workshop |
| End Stage 2
(Scheme Design) | <ul style="list-style-type: none">- BREEAM design assessment including the critical decisions made so far and these still to be decided plus a preliminary assessment of BREEAM rating of the current design.- Team workshop for design team to present updated BREEAM report to have input from University EEMU/BREEAM Assessor before Stage 3. |

**End Stage 3
(Tender & Contract)**

- BREEAM Design Assessment by Independent Assessor. 'Excellent' is required for new build and extension projects. 'Very Good' is required for refurbishment projects.
- Ensure requirements of BREEAM are included and correct at pre-tender and are included within the tender documentation.
- An update report and workshop on the BREEAM Assessment following tender returns, but pre-contract to address any design developments and variations required (due to VE, say) and how their impact will be addressed to avoid any reduction in the BREEAM rating.
- Before contract but after tender the Project Manager is to ensure the University's requirements have been achieved.
- A statement of final designs in relation to BREEAM (before contract and after tender).

**End Stage 4
(Construction,
Commissioning &
Handover)**

- The implications of any variations on the BREEAM assessment and target must be identified to the University (EEMU) as part of the variation process.
- EEMU and BREEAM assessors are kept informed of post-contract changes, who can raise these as an issue.
- Prior to handover the BREEAM assessor will assess if the University's requirements have been met. This will be carried out before handover and sign-off to ensure that there is time for remedial action to be taken if required.
- EEMU involved in handover procedure to check 'beyond' commissioning checklist for comfort/lifecycle costing elements (EEMU Checklist in Appendix A)

**End Stage 5
(Project Closure)**

- After 12 months a performance measure will be done by the EEMU.

Appendix A

EEMU Handover Checklist

Energy and Environmental Checklist

1. Connection of any Building Energy Management System (BEMS) is complete and operational.
2. Location of any (BEMS) terminals and outstations.
3. Location of any utility or sub meters including gas, electricity, oil and water (where applicable).
4. A copy of the Building Energy Log Book (as per building regulations).
5. Copy of the user manual (if agreed as part of BREEAM).
6. Location of the heating, ventilation and cooling controls if not controlled by the BEMS.
7. Location of heating/cooling thermostats.
8. Location of centralised waste and recycling storage.
9. Location of transport related facilities, bike sheds/stands, transport information centres.