



Department of  
**Health, Social Services  
and Public Safety**

[www.dhsspsni.gov.uk](http://www.dhsspsni.gov.uk)

AN ROINN

**Sláinte, Seirbhísí Sóisialta  
agus Sábháilteachta Poiblí**

MÁNNYSTRIE O

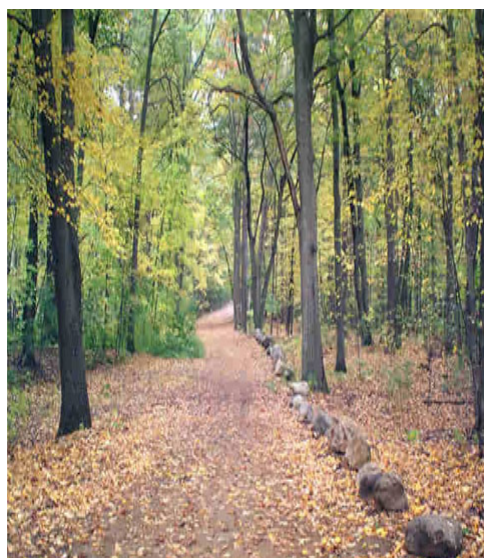
**Poustie, Resydënter Heisin  
an Fowk Siccar**



# SUSTAINABLE DEVELOPMENT DESIGN BRIEF

Version 7

**VOLUME 2(B) – REPORTS  
For  
Projects >£2m**



**Health Estates Investment Group  
Estates Directorate  
March 2012**



## Forward

This Version 7 of the Sustainable Development Design Brief (SDDB) - Volume 2 has been re-aligned with the BREEAM New construction Technical Manual SD5073-2.0:2011 version, to direct new capital projects and refurbishments achieve an Excellent BREEAM rating;

Extracts from the BRE, BREEAM for Healthcare have been included for quick reference but are not exhaustive and should not replace the BREEAM process. Further detail is available from the BRE website: [www.breglobal.com](http://www.breglobal.com)

A copy of the BREEAM assessment manual should be obtained from BRE website and used in conjunction with the SDDB. The assessment manual gives the detail required to achieve credits for scoring BREEAM for Healthcare rating.

BREEAM is an evidence based assessment and particular attention should be given to acquiring hard copy evidence in support of the ongoing process at each design stage as applicable.

Whole life costing is a critical aspect of any sustainable design project and a must to demonstrate that significant improvements in the sustainability performance of a building can be achieved at very little additional cost. Ref: [www.breglobal.com](http://www.breglobal.com)

It is also critical that the fabric of Healthcare buildings is designed to a high thermal performance to avoid excessive engineering intervention.

It is intended that the reports from the SDDB Volume 2 checklist are to be used as good news or otherwise stories in the DHSSPS Annual Sustainable Development Report and as a guide for future development of capital projects.

## **Volume 2 - Sustainable Design Checklist Reports**

This brief has been re-aligned with SD5073-2.0: 2011 UK version of BREEAM and addresses all the categories and main issues addressed. (*ref: Table 3-3 of BREEAM assessors manual*).

Management

Health and Wellbeing

Energy

Transport

Water

Materials

Waste

Land Use

Pollution

Innovation

Further details of sustainable development policies and practices have been reviewed and best practice identified in Volume 1 of this Brief.

It should be recognised that not all questions are appropriate to every project, this is dependant on the type, size and function of the building.

Before commencement of the project the Project Manager should complete a BREEAM pre-assessment question set to identify the appropriate and mandatory question set for the project. (See below for extract from BREEAM for Healthcare project identification pre-assessment)

The Project Manager is required to oversee the completion of the attached reports following completion of each SDDB stage of the project on behalf of the full design team including the client.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

The fields below marked with a \* must be completed/defined prior to beginning the pre-assessment to ensure the correct assessment issues and credits are selected and the outcome of the pre-assessment accurate. Note: without this information the reporting tool cannot determine the applicable BREEAM issues and number of credits and data entry will not be possible for the building assessment.

## BREEAM 2011 New Construction Pre-Assessment Estimator



### Building details

Building name	
Building type (main description)	Healthcare
Building type (sub-group)	Healthcare - Teaching/specialist hospital
Project type	New Construction (fully fitted)
Will the building be heated and/or cooled?	Yes
If applicable, does this industrial building have a heated or cooled operational area?	Option not applicable to building type
Commercial/industrial refrigeration and storage systems	Yes
Internal or external planting and/or soft landscaping	Yes
Building user transportation systems (lifts and/or escalators)	Yes
Laboratory function/area and size category	No laboratory
Laboratory containment level	
Fume cupboard(s) and/or other containment devices	Yes
Vehicle Wash System	No
If applicable, will this healthcare building house inpatients?	Yes
If applicable, does this industrial building have an office area?	Option not applicable to building type

Copyright of BRE - The above table can be found in BREEAM 2011 Pre-assessment available from - [www.breeam.org](http://www.breeam.org)

The brief is designed to allow reporting and monitoring of design proposals, contract documentation and construction practice against the highest sustainable development standards and is aimed at achieving an Excellent BREEAM rating.

The document is structured in two volumes:

### **Volume 1**

A guide to sustainable development in practice which identifies opportunities and targets for the integration of sustainable development principles and practices.

### **Volume 2**

Reporting against each of the identified central themes for sustainable development. The Project Manager is required to oversee the completion of the attached reports following completion of each SDDB stage of the project on behalf of the full design team including the client.

The relevant stages are identified in the table below:

<b>CIM Stage</b>	<b>Title</b>	<b>RIBA Work Stage</b>	<b>Sustainability Brief</b>	<b>HEIG Project Review</b>	<b>Report</b>
Stage 0	Outline Business Case	A and B	Sustainability Review I	Project Review I	
Stage 1	Concept & Design Development	C and D	Sustainability Review II and III	Project Review II and III	
Stage 2	Final Design	E, F and G	Sustainability Review IV	Project Review IV	
Stage 3	Tender Action & Mobilisation	H and J			
Stage 4	Construction	K			
Stage 5	Technical Commissioning	L	Sustainability Review V	Project Review V	
Stage 6	Post Completion	L	Sustainability Review VI		
Stage 7	Operational Commissioning		Sustainability Review VII		
Stage 8	Post Project Evaluation				

## CHART FOR MANAGING & REPORTING SUSTAINABLE DEVELOPMENT IN THE DESIGN PROCESS FOR HSC & PUBLIC SAFETY PROJECTS

Sustainable Development Design Brief Report Stages	CIM Stage 0  Sustainability Review I Summary Report	CIM Stage 1  Sustainability Review II & III Summary Report	CIM Stage 2  Sustainability Review IV Summary Report	CIM Stage 3 & Stage 4  No Reports Required	CIM Stage 5  Sustainability Review V Summary Report	CIM Stage 6  Sustainability Review VI Final Report	CIM Stage 7  Sustainability Review VII Final Report & BREEAM Achievement
Project Development Stages	Outline Business Case	Concept & Design Development	Final Design	Tender Action Mobilisation and Construction	Technical Commissioning	Post Completion	Operational Commissioning
<b>Client / Trust</b>	Participate in BREEAM pre-assessments on all short listed options and contribute to SD Review I report	Facilitate Project Design Teams and appointed advisors.	Facilitate Project Design Teams and appointed advisors.	XXXXXXXX	Contribute where appropriate with the Main Contractor to ensure that the Technical Commissioning achieves the appropriate certification and ensure that all SD training is in accordance with the user guide.	Assist the Design Team to complete SD Review VI report	To ensure the compliant BREEAM rating is maintained. The client FM should register & therefore commit the building for assessment under BREEAM in use scheme. Initiate a Post Occupancy Evaluation.
<b>Project Manager</b>	Commission BREEAM pre-assessments on all short listed options and complete SD Review I report	Commission BREEAM pre-assessment on preferred option and complete SD Review II & III report	Liaise with the Lead consultant, BREEAM AP and provide Final Design SD Review IV report to S.D Manager HEIG.	XXXXXXXX	Furnish the SDEB with confirmation that all compliances have been met. Complete SD Review V report.	Assist the client & Design Team to complete SD Review VI report, identifying relevant impacts that directed the BREEAM process.	Provide SDEB with SD Review VII Final report & BREEAM achievement.
<b>Design Consultant Lead</b>	<i>Not yet appointed</i>	Facilitate BREEAM workshop, Contribute to SD Review II & III report.	Work closely with design team to provide the most sustainable outcome and compliant BREEAM rating. Contribute to SD Review IV report.	Ensure tender / contract documentation incorporate all BREEAM related requirements	Advise the HEIG Project manager of any non compliances and contribute to the Building user guide and SD Review V report	Ensure that any information that comes to light during the maintenance period relevant to the final BREEAM credits are identified and advised to the client. Contribute to SD Review VI report,	XXXXXXXX
<b>BREEAM Assessor</b>	<i>Not yet appointed</i>	Register approved scheme for current BREEAM assessment & provide pre-assessment. Give access to Tracker system to all personnel responsible for providing	Report on the final design BREEAM assessment and anticipated BREEAM score. Apply for Interim design Stage	XXXXXXXX	Continue to report on current BREEAM score being achieved.	Provide final post construction stage certification report.	Ensure that all necessary documentation is collated to submit scheme for final BREEAM achievement/certification

Sustainable Development Design Brief Report Stages	CIM Stage 0  Sustainability Review I Summary Report	CIM Stage 1  Sustainability Review II & III Summary Report	CIM Stage 2  Sustainability Review IV Summary Report	CIM Stage 3 & Stage 4  No Reports Required	CIM Stage 5  Sustainability Review V Summary Report	CIM Stage 6  Sustainability Review VI Final Report	CIM Stage 7  Sustainability Review VII Final Report & BREEAM Achievement
Project Development Stages	Outline Business Case	Concept & Design Development	Final Design	Tender Action Mobilisation and Construction	Technical Commissioning	Post Completion	Operational Commissioning
		relevant documentation for BREEAM assessment process.	Certification.				.
<b>BREEAM AP Accredited Professional</b>	<i>Not yet appointed</i>	Give guidance on BREEAM process and identify personnel responsible for individual BREEAM credits. Advise on the outturn of the initial pre-assessment score and give guidance on improvement of score against each credit where necessary. Assist in the SD review report at this stage.	Continue to contribute to the design process until a final design and compliant BREEAM score is achievable. Assist in the SD review report at this stage.	<b>XXXXXXXX</b>	Continue to ensure that the project remains on track to achieve the compliant BREEAM score and provide advice on any non compliance and suggest solutions. Furnish the design team with detailed progress reports against the defined BREEAM performance targets. Assist in the SD review report at this stage.	<b>XXXXXXXX</b>	<b>XXXXXXXX</b>
<b>Client/Trust &amp; HEIG Project Administration</b>	Add all BREEAM pre-assessment scores to PM information system (HEIG admin)	Collate all HEIG documentation necessary for BREEAM process and add to Tracker. Trust/Client to provide as above relevant to their area of responsibility.	Continue to support the Design Team and collate the relevant documentation for BREEAM assessment.	<b>XXXXXXXX</b>	Continue to provide admin support and follow up any outstanding documentation for BREEAM assessment. (Client)	Continue to provide admin support and follow up any outstanding documentation for BREEAM assessment. (Client)	Continue to provide admin support and follow up any outstanding documentation for BREEAM assessment. (Client)

<b>Sustainable Development Design Brief Report Stages</b>	<b>CIM Stage 0</b>  Sustainability Review I Summary Report	<b>CIM Stage 1</b>  Sustainability Review II & III Summary Report	<b>CIM Stage 2</b>  Sustainability Review IV Summary Report	<b>CIM Stage 3 &amp; Stage 4</b>  No Reports Required	<b>CIM Stage 5</b>  Sustainability Review V Summary Report	<b>CIM Stage 6</b>  Sustainability Review VI Final Report	<b>CIM Stage 7</b>  Sustainability Review VII Final Report & BREEAM Achievement
<b>Project Development Stages</b>	<b>Outline Business Case</b>	<b>Concept &amp; Design Development</b>	<b>Final Design</b>	<b>Tender Action Mobilisation and Construction</b>	<b>Technical Commissioning</b>	<b>Post Completion</b>	<b>Operational Commissioning</b>
<b>Sustainability &amp; Specialist Engineering Branch (SDEB) (Sustainable Development Manager)</b>	Provide support to Project Manager as necessary in process.	Provide support to Project Manager as necessary in process and liaise with project team as required.	Provide interim report to Project Directors on anticipated outturn at this stage based on evidence received .	<b>XXXXXXXX</b>	Provide support to project Manager as necessary and provide report to Deputy Secretary on SD achievements or otherwise.	Provide support to project Manager as necessary and provide report to Deputy Secretary on SD achievements or otherwise.	Provide support to project Manager as necessary and provide report to Deputy Secretary on SD achievements or otherwise.
<b>The Main Contractor (Appointed under Design &amp; Build Projects)</b>	Participate in BREEAM pre-assessment.	Contribute to the Design process & register in Considerate Constructors Scheme.	Contribute to the Design process & agree BREEAM targets.	Register for Considerate Constructors Scheme & agree with the client BREEAM credits to be achieved.	Build in accordance with SD Design performance specification.	On completion of construction the main contractor shall account for a thermo graphic survey to be undertaken & any defects rectified.	Ensure SD Post project Evaluation and all BREEAM assessments are achieved. Appoint special commissioning manger to complete seasonal commissioning over a 12month period.
<b>The Main Contractor (Appointed under Performance Related Partnering, PRP) or Traditional procurement.</b>	<i>Not yet appointed</i>	<i>Not yet appointed</i>	<i>Not yet appointed</i>	Register for Considerate Constructors Scheme & agree with the client BREEAM credits to be achieved.	Build in accordance with SD Design performance specification.	On completion of construction the main contractor shall account for a thermo graphic survey to be undertaken & any defects rectified.	Provide client support to ensure SD Post project Evaluation and all BREEAM assessments are achieved. Appoint special commissioning manger to complete seasonal commissioning over a 12month period.



To achieve a BREEAM rating, the minimum percentage score must be achieved (as outlined in BREEAM assessor's manual available on the BRE web site [www.breglobal.com](http://www.breglobal.com) i.e. in Northern Ireland 85% for Outstanding, 70% for Excellent and 55% for Very Good.)

To achieve a BREEAM rating the minimum standards (i.e. number of credits achieved) applicable to that rating level (below) complied with.

**Reference to the assessor's manual should be made for further information.**

**Table 4 Minimum BREEAM standards**

BREEAM issue	Minimum standards by BREEAM rating level				
	PASS	GOOD	VERY GOOD	EXCELLENT	OUTSTANDING
Man 01: – Sustainable procurement	1 credit	1 credit	1 credit	1 credit	2 credits
Man 02: – Responsible construction practices	-	-	-	1 credit	2 credits
Man 04: – Stakeholder participation	-	-	-	1 credit (Building user information)	1 credit (Building user information)
Hea 01: - Visual comfort	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only
Hea 04: - Water quality	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only
Ene 01: - Reduction of CO2 emissions	-	-	-	6 credits	10 credits
Ene 02: - Energy monitoring	-	-	1 credit (First sub-metering credit)	1 credit (First sub-metering credit)	1 credit (First sub-metering credit)
Ene 04: - Low or zero carbon technologies	-	-	-	1 credit	1 credit
Wat 01: - Water consumption	-	1 credit	1 credit	1 credit	2 credits
Wat 02: - Water monitoring	-	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only
Mat 03: – Responsible Sourcing	Criterion 3 only	Criterion 3 only	Criterion 3 only	Criterion 3 only	Criterion 3 only
Wst 01: – Construction waste management	-	-	-	-	1 credit
Wst 03: – Operational waste	-	-	-	1 credit	1 credit
LE 03: - Mitigating ecological impact	-	-	1 credit	1 credit	1 credit

Copyright of BRE -The above table can be found in BREEAM New Construction – Non-Domestic Buildings – Technical Manual SD5073-2.0:2011 at [www.breeam.org](http://www.breeam.org)

## SUSTAINABLE DEVELOPMENT DESIGN BRIEF (SDDB)

### CIM Stage 0 - Sustainability Review I – SUMMARY REPORT

Project title:	
BREEAM Pre- Assessment Score	

This report should take the form of an overview of level of achievement  
At this stage only.

#### Example:

Paragraph 1. – Introduction **(to be completed by Trust / Trust representative)**

Description of Type of project e.g. Extension to existing building, new build on either brown or green field site, or refurbishment of existing building. Give reasons for both choice of building type and choice of site, also a brief overview of need / requirement.

Paragraph 2. – The story so far **(to be completed by Project Manager)**

BREEAM pre-assessment should be used to highlight issues that may never be addressed and give reasons.

Paragraph 3 – Cost barriers (if applicable) **(to be completed by Trust / Trust representative)**

Identify if there are any cost barriers identified at this stage. This should **not** take the form of a 'wish list' but should identify reasons why costs prevent the project attaining a reasonable score.

Conclusion **(to be completed by Project Manager)**

This paragraph should give an overall view of the project so far with regard to meeting the appropriate BREEAM / NEAT score for its type.

Report compiled by:	
Date:	
Client:	
HEIG Project Manager sign off:	
BREEAM Pre-Assessment Score :	

## SUSTAINABLE DEVELOPMENT DESIGN BRIEF (SDDB)

### CIM Stage 1 - Sustainability Review II and III – SUMMARY REPORT

Project title:	
BREEAM Assessment Score	

This report should update the previous report

Example:

**Paragraph 1. – Introduction (to be completed by Project Manger)**

Description of Type of project e.g. Extension to existing building, new build on either brown or green field site, or refurbishment of existing building. Give reasons for both choice of building type and choice of site, also a brief overview of need / requirement.

**Paragraph 2. – The story so far (to be completed by Design Team)**

Using both the Stage 1 SDDB assessment and where applicable the BREEAM Stage 1 assessment give an overview of achievement against criteria as identified in this stage and if not reasons why not.

**Paragraph 3 – Cost barriers (if applicable) (to be completed by Design Team)**

Identify if there any cost barriers identified at this stage. This should **not** take the form of a 'wish list' but should identify reasons why costs prevent the project attaining a reasonable score.

**Conclusion (to be completed by Design Team)**

This paragraph should give an overall view of the project so far with regard to meeting the appropriate BREEAM / NEAT score for its type.

Report compiled by:	
Date:	
Client:	
HEIG Project Manager sign off:	
BREEAM Score so far:	

## CIM Stage 2 - Sustainability Review IV – FINAL DESIGN SUMMARY REPORT

Project title:	
BREEAM Assessment Score	

This report should identify the final sustainable development achievements.

Example:

Paragraph 1. – Introduction.- final design identifying those achievements –**(to be completed by Design consultant and BRE Assessor)**

Paragraph 2. – Problems encountered. - **–(to be completed by Design consultant and BRE Assessor)**

Paragraph 3 – Final Cost implications.

Conclusion

This paragraph should give an overview of the project so far with regard to meeting the appropriate BREEAM for Healthcare score for its type.

Prepared by:	
Date:	
Client:	
HEIG Project Manager sign off:	
BREEAM Score so far:	

## **CIM Stage 5 - Sustainability Review V – PROJECT REVIEW V SUMMARY REPORT**

This may take the form of a letter confirming the following:

- Brief summary identifying that the Technical Commissioning has been prepared and appropriate certification has been obtained.
- Confirmation that the 'Building User Guide' and training has been given to client.
- Evidence of the considerate constructors score or other alternative scheme and independently assessed. That the compliance report has been received

## CIM Stage 6 - Sustainability Review VI –FINAL REPORT

Project title:	
BREEAM Anticipated Final Score	

This report should be as comprehensive as possible.

- **The Design Team** shall confirm that a programme for seasonal commissioning as specified in BREEAM has been agreed with the Trust.
- Identify any further changes to the project that have had an impact on the final BREEAM score. (if applicable). **(This should be completed by the Design Team)**
- Lessons learned along the way. **(This should be completed by the Trust and the Design Team)**
- Suggestions of what could have been done different. **(This should be completed by the Project Manager)**

Prepared by:	
Date:	
Client:	
HEIG Project Manager sign off:	
BREEAM Score so far:	

## **CIM STAGE 7 – Operational Commissioning - Sustainability Review VII– FINAL REPORT and BREEAM ACHIEVEMENT**

Project title:	
BREEAM SCORE AWARDED	

Example:

- Impact of applying BREEAM assessment to the project –**(to be completed by Project Manager)**