Table 3 - BREEAM Pre-assessment Results

Credit Ref	Summary of Credit Criteria	Credit Title	Credits Available	Weighted % Worth	A = Would be Achieved	B = Low effort/cost	C = High effort/cost or Uncertain	D = Not achieved	Preliminary Credit Evaluation
T 5	To demonstrate compliance; **First credit;** 1. Compliant cycle storage facilities and showers must be provided for a percentage of building occupants in accordance with the following figures: a. 10% of building occupants up to 500 PLUS b. 7% for building occupants in the range of 501 – 1000 + c. 5% for building occupants over 1000 For example, in a building with 1300 occupants the following calculation indicates the cycle storage requirements necessary to achieve this credit. 10% of 500 + 7% of 500 + 5% of 300 Total = 50 + 35 + 15 = 100 cycle storage spaces	**Cyclist Facilities**	1	0.76%	1				It was confirmed at the pre-assessment meeting on 21.08.07 that 13 cycle spaces will be provided, dedicated for use by users of the office space which is 1200m2 **It is anticipated that this credit will be achieved, subject to the provision of evidence.**
	Second credit; 1. At least one of the following facilities must be provided: a. Compliant changing facilities and lockers for clothes OR b. Compliant drying space for wet clothes		1	0.76%	1				It was confirmed at the pre-assessment meeting on 21.07.08 that 2 showers will be provided, with 14 lockers located adjacent to the shower rooms. For further information on cyclist facilities refer to Appendix 6 attached. **It is anticipated that this credit will be achieved, subject to the provision of evidence.**
T 8	Where evidence is provided to demonstrate that a travel plan has been developed and tailored to the specific needs of the users of the assessed development. To demonstrate compliance; 1. A travel plan is been developed as part of the feasibility and design stages.	**Travel Plan**	1	0.76%	1				It is understood that a Travel Plan has been prepared for the site, and is to be updated to reflect design changes and meet the BREEAM criteria. For further information on travel plan requirements refer to Appendix 7 attached. **It is anticipated that this credit will be achieved, subject to the provision of evidence.**
		Subtotals	33		26	2	3	2	
			100%		79%	6%	9%	6%	

Table 3 - BREEAM Pre-assessment Results

Credit Ref	Summary of Credit Criteria	Credit Title	Credits Available	Weighted % Worth	A = Would be Achieved	B = Low effort/cost	C = High effort/cost or Uncertain	D = Not achieved	Preliminary Credit Evaluation
Water									
W 1	Where the specification includes taps, urinals, WCs and showers that consume less water in use than standard specifications for the same type of fittings. The following scale is used for awarding the credits: 1 credit where consumption is 4.5 - 5.5m3 per person per year 2 credits where consumption is 1.5 - 4.4m3 per person per year 3 credits where consumption is <1.5m3 per person per year	Water Consumption	3	2.50%	2			1	It is understood that the following sanitary fittings will be specified: - 6/4 litre dual flush WCs - No urinals - Aerating taps - Showers with a flow rate between 6 and 9 l/min Based on these fittings, the BREEAM calculator tool identifies a consumption rate of 3.74m^3/person/year. It is anticipated that two of three credits will be achieved, subject to the provision of evidence.
W 2	Where information is provided to demonstrate that a water meter with a pulsed output will be installed on the mains supply to each building. To demonstrate compliance; 1. The specification of a water meter on the mains water supply to the building, this includes where water is supplied via a borehole or other private source. 2. The water meter has a pulsed output to enable a future connection to a Building Management System (BMS) for the monitoring of water consumption.	Water Meter	1	0.83%	1				It was confirmed at the pre-assessment meeting on 21.08.07 that a water meter with a pulsed output will be installed. It is anticipated that this credit will be achieved, subject to the provision of evidence.

Table 3 - BREEAM Pre-assessment Results

Credit Ref	Summary of Credit Criteria	Credit Title	Credits Available	Weighted % Worth	A = Would be Achieved	B = Low effort/cost	C = High effort/cost or Uncertain	D = Not achieved	Preliminary Credit Evaluation
W 3	Where evidence provided demonstrates that a leak detection system is specified or installed. 1. A leak detection system is specified/installed. 2. The system is capable of identifying major leaks both within the building and between the building and the site boundary, and should cover all mains water supplies to the building. 3. The leak detection system is: a. Audible when activated; b. Activated when a continuous flow of water passes through the water meter at a flow rate above a pre-set minimum for a pre-set period of time; c. Able to identify different leakage rates, e.g. continuous, high and/or low level leaks, over set time periods; d. Programmable to suit the owner/occupiers' requirements; and e. Where applicable, designed to avoid false alarms caused by normal operation of large water consuming plant such as chillers. 4. The system need not cut off the water supply when the alarm is triggered.	Major Leak Detection	1	0.83%				1	It was confirmed at the pre-assessment meeting on 21.08.07 that there is currently no intention to install a leak detection system. It is anticipated that this credit will not be achieved

Table 3 - BREEAM Pre-assessment Results

Credit Ref	Summary of Credit Criteria	Credit Title	Credits Available	Weighted % Worth	A = Would be Achieved	B = Low effort/cost	C = High effort/cost or Uncertain	D = Not achieved	Preliminary Credit Evaluation
W 4	Where evidence provided demonstrates that proximity detection shut off is provided to the water supply to all urinals and WC's. To demonstrate compliance; 1. Solenoid valves are specified for each toilet area in the building (controlling the water supply to all urinals and WC's) and these are linked to EITHER a. Infra-red movement detectors OR b. Sensors placed at or on entry doors. 2. Shut off systems may control combined toilet areas (for example the male and female toilets within a core) provided that the source of the leak within that area can be isolated once the building is occupied.	Sanitary Supply Shut Off	1	0.83%	1				It was confirmed at the meeting and understood that a sanitary supply shutoff system will be provided, with a PIR sensor linked to a solenoid valve to shut off the sanitary supply when the building is unoccupied. **It is anticipated that this credit will be achieved, subject to the provision of evidence.**
		Subtotals	6		4	0	0	2	
			100%		67%	0%	0%	33%	

Table 3 - BREEAM Pre-assessment Results

Credit Ref	Summary of Credit Criteria	Credit Title	Credits Available	Weighted % Worth	A = Would be Achieved	B = Low effort/cost	C = High effort/cost or Uncertain	D = Not achieved	Preliminary Credit Evaluation
Materials									
MW 1	Where evidence is provided to demonstrate that the major building elements specified have an 'A rating', as defined in the Green Guide to Specification. The following elements are to be considered; a. External Walls b. Windows c. Roof d. Upper Floor Slabs (All floor slabs except ground floor)	**Major Building Elements**	**4**	**3.33%**	3			1	It is understood that the following materials are currently specified: External walls are existing basement walls (A rating) Aluminium windows (B rating) No roof as development is located in the basement space (A rating by default as confirmed by BRE) Upper Floor Slab - Precast hollow slab with screed (A) **It is anticipated that three of four credits will be achieved, subject to the provision of evidence.**
MW 3	Where carpets and other floor finishes are specified by the future occupant or, in tenant areas of speculative buildings, where carpets or floor finishes are installed in a limited show area only. To demonstrate compliance; 1. For tenanted areas the design team must provide written confirmation that carpets and other floor finishes will be installed in a show area only prior to tenant fit out works. A show area could be either a floor plate, or an office. However, to award this credit it must be less than 25% of the net lettable floor area. 2. In a building developed for a specific occupant, the design team should provide written confirmation that the future occupant has selected (or agreed to) the specified floor finishes.	**Floor Finishes**	**1**	**0.83%**	1				It was confirmed at the pre-assessment meeting on 21.08.07 that no floor finishes will be installed by the developer as it is a speculative development. **It is anticipated that these credits will be achieved by default.**

Table 3 - BREEAM Pre-assessment Results

Credit Ref	Summary of Credit Criteria	Credit Title	Credits Available	Weighted % Worth	A = Would be Achieved	B = Low effort/cost	C = High effort/cost or Uncertain	D = Not achieved	Preliminary Credit Evaluation
MW 5	**Where at least 50% of the total façade (by area) is reused and at least 80% of the reused façade (by mass) comprises in-situ reused material.** To demonstrate compliance; 1. At least 50% of the total façade (by area) is reused. 2. At least 80% of the reused façade (by mass) comprises in-situ reused material.	**Reuse of Building Façade**	**1**	**0.83%**				**1**	**It is understood that the façade will be made up almost entirely of newly installed glazing and therefore this credit cannot be achieved.** **It is anticipated that this credit will not be achieved**
MW 6	**Where evidence is provided to demonstrate that a design reuses at least 80% of an existing primary structure and for part refurbishment and part new build, the volume of the reused structure comprises at least 50% of the final structure's volume.** To demonstrate compliance; 1. Where at least 80% by volume of the existing primary structure is reused without significant strengthening or alteration works. 2. Where a project is part refurbishment and part new build the reused structure should comprise at least 50% by volume of the final building, i.e. any new build extension to a building being refurbished should not be larger than the original building to qualify for this credit.	**Reuse of Building Structure**	**1**	**0.83%**			**1**		The majority of the existing structure will remain in place. However, it has not been established at this point whether this will constitute 80% by volume and 50% by mass. **It is currently uncertain whether this credit will be achieved**

Table 3 - BREEAM Pre-assessment Results

Credit Ref	Summary of Credit Criteria	Credit Title	Credits Available	Weighted % Worth	A = Would be Achieved	B = Low effort/cost	C = High effort/cost or Uncertain	D = Not achieved	Preliminary Credit Evaluation
MW 7	Where significant use of crushed aggregate, crushed masonry or alternative aggregates (manufactured from recycled materials) are specified for 'high grade' aggregate uses (such as the building structure, ground slabs, roads, etc.). To demonstrate compliance; 1. Where the amount of recycled aggregate specified is over 25% (by weight) of the total 'high grade' aggregate uses. Recycled aggregates can be EITHER; a. Obtained on site, OR b. Obtained from sites within a 30km radius, OR c. Obtained from a recycled, non construction post-consumer/post industrial by-product source, such as crushed/blown glass pellets, PFAs, blast furnace slag, etc. 2. 'High grade' aggregate uses are considered to be: a. Structural frame, b. Floor slabs including ground floor slabs, c. Asphalt based or similar road surfaces, d. Gravel landscaping, e. Site-derived masonry as hardcore under ground floor slabs, site roads and car parking areas.	Recycled Aggregates	1	0.83%			1		Although the developer is committed to using recycled aggregates where feasible, it is uncertain at this stage whether this will constitute 25% of the total. **It is currently uncertain whether this credit will be achieved**

Table 3 - BREEAM Pre-assessment Results

Credit Ref	Summary of Credit Criteria	Credit Title	Credits Available	Weighted % Worth	A = Would be Achieved	B = Low effort/cost	C = High effort/cost or Uncertain	D = Not achieved	Preliminary Credit Evaluation
MW 8	**Where materials used in key building elements are responsibly sourced.** **To demonstrate compliance;** **The majority of materials in the following elements within the building must be responsibly sourced.** **a. Roof** **b. Frame** **c. Walls (external)** **d. Floors (ground, upper)** **e. Foundations/substructure** **f. Doors** **g. Windows**	**Responsible Sourcing of Materials**	**3**	**2.50%**	**1**		**1**	**1**	**A thick layer of existing concrete will remain in place, achieving 'Tier 1' classification. FSC timber would be used throughout the development. However, it is uncertain whether other building materials will be procured from suppliers with a certified EMS in place.** **For further information on Responsible Sourcing of Materials refer to Appendix 8 attached.** **It is anticipated that at least one of three credits would be achieved, subject to the provision of evidence.**
MW 12	**Where a central, dedicated storage space is provided for materials that can be recycled. This can be either within the building itself, or on site using skips, (provided there is good access for collections and it is within easy reach of the building).** **To demonstrate compliance;** **1. Provision of a central dedicated storage space with the following characteristics:** **a. Clearly labelled for recycling.** **b. Placed within easy reach of all building areas (e.g. less than 20m from the base of a stairwell serving all floors).** **c. In a location with good vehicular access to facilitate collections.** **2. The size of the space allocated must be at least:** **a. 2m2 per 1000m2 of net floor area.** **b. 10m2 for buildings with net floor area over 5,000m2.**	**Storage of Recyclable Waste**	**1**	**0.83%**	**1**				**A recycling storage area is proposed to be located close to the vehicular entrance. This area will comply with the size requirement and is easily accessible.** **It is anticipated that this credit will be achieved, subject to the provision of evidence**
		Subtotals	**12**		**6**	**0**	**3**	**3**	
			100%		**50%**	**0%**	**25%**	**25%**	

Table 3 - BREEAM Pre-assessment Results

Credit Ref	Summary of Credit Criteria	Credit Title	Credits Available	Weighted % Worth	A = Would be Achieved	B = Low effort/cost	C = High effort/cost or Uncertain	D = Not achieved	Preliminary Credit Evaluation
Pollution									
P 1	Where evidence is provided to demonstrate the use of refrigerants with a global warming potential (GWP) of less than 5 or where there are no refrigerants specified for use in building services. To demonstrate compliance; 1. The building has no refrigerants OR 2. The refrigerants used within the building services have a GWP less than 5.	**Refrigerant GWP - Building Services**	**1**	**1.00%**			**1**		It is not clear at present whether refrigerants with a GWP of less than 5 can be specified. **This credit is currently uncertain.**
P 2	Where evidence is provided to demonstrate that refrigerant leaks can be detected or where there are no refrigerants specified for use in the building or development for the first credit. Where evidence is provided to demonstrate that the provision of automatic refrigerant pump down is made to a heat exchanger (or dedicated storage tanks) with isolation valves or where there are no refrigerants specified for the development for the second credit.	**Refrigerant Leaks**	**2**	**2.00%**				**2**	The current proposals do not include the specification of a refrigerant leak detection system. **It is anticipated that these credits will not be achieved.**

Table 3 - BREEAM Pre-assessment Results

Credit Ref	Summary of Credit Criteria	Credit Title	Credits Available	Weighted % Worth	A = Would be Achieved	B = Low effort/cost	C = High effort/cost or Uncertain	D = Not achieved	Preliminary Credit Evaluation
P 4	Where evidence provided demonstrates that the specification of insulating materials avoids the use of substances with a global warming potential (GWP) of 5 or more in either manufacture or composition. To demonstrate compliance; 1. Insulants used within the building fabric and services avoid the use of substances with a global warming potential (GWP) of 5 or more in either manufacture or composition. 2. Insulants used within the building fabric and services avoid the use of substances with an ozone depleting potential (ODP) in either manufacture or composition. 3. The criteria apply to insulation products used in the following building areas: a. Building fabric including (but not exclusively); walls, roof, floor, window frames, doors, cavity closures and lintels. b. Building services including (but not exclusively); chilled water pipework, refrigerant pipework, ductwork, hot & cold water pipes and water tanks etc. c. Internal sound proofing.	Insulant GWP	1	1.00%	1				It is understood that insulants such as rockwool, with zero ODP and a GWP of less than 5 will be specified for both building fabric and services. **It is anticipated that this credit will be achieved, subject to the provision of evidence.**

Table 3 - BREEAM Pre-assessment Results

Credit Ref	Summary of Credit Criteria	Credit Title	Credits Available	Weighted % Worth	A = Would be Achieved	B = Low effort/cost	C = High effort/cost or Uncertain	D = Not achieved	Preliminary Credit Evaluation
P 6	3 credits are awarded as follows; Where evidence is provided to demonstrate that the maximum dry NOx emissions from delivered space heating energy are: ≤100 mg/kWh (at 0% excess O2). Where evidence is provided to demonstrate that the maximum dry NOx emissions from delivered space heating energy are: ≤70 mg/kWh (at 0% excess O2). Where evidence is provided to demonstrate that the maximum dry NOx emissions from delivered space heating energy are: ≤40 mg/kWh (at 0% excess O2).	NOx Emissions	3	3.00%	1		1	1	A biomass heating system is currently proposed. It is expected that this system will achieve emission levels below 100 mg/kWh, but uncertain as to whether levels below 70 mg/kWh can be achieved. **It is anticipated that at least one of three credits will be achieved, subject to the provision of evidence.**
P 7	2 credits are awarded as follows; Where evidence is provided to demonstrate that the assessed development is located in a zone defined as having a low annual probability of flooding for two credits. OR Where evidence is provided to demonstrate that the assessed development is located in a zone defined as having a medium annual probability of flooding and the ground level of the building, car parking and access is above the design flood level for the site's location for one credit. 1 further credit is awarded as follows; Where evidence is provided to demonstrates that Sustainable Urban Drainage techniques are specified to minimise the risk of localised flooding, resulting from a loss of flood storage on site through development.	Minimising Flood Risk	2	2.00%	2				The development is taking place in an area of low flood risk as defined by the Environment Agency (EA), confirmed by MP on the EA flood risk map, using the postcode of the site. **These credits will be achieved, subject to the provision of evidence.**
			1	1.00%				1	No SuDS measures are currently specified. **It is anticipated that this credit will not be achieved.**

Table 3 - BREEAM Pre-assessment Results

Credit Ref	Summary of Credit Criteria	Credit Title	Credits Available	Weighted % Worth	A = Would be Achieved	B = Low effort/cost	C = High effort/cost or Uncertain	D = Not achieved	Preliminary Credit Evaluation
P 8	Where evidence is provided to demonstrate that on site treatment such as oil separators/interceptors or filtration have been specified for areas at risk from pollution, i.e. vehicle manoeuvring areas, car parks, waste disposal facilities, delivery facilities or plant areas.	Minimising Watercourse Pollution	1	1.00%				1	The proposals do not currently include the specification of oil separators in the car park area. **It is anticipated that this credit will not be achieved.**
P 11	3 credits are awarded as follows; Where evidence is provided to demonstrate that a feasibility study considering renewable and low emission energy has been carried out and the results implemented for one credit. Where evidence is provided to demonstrate that the first credit has been achieved and 10% of total energy demand for the building/development is supplied from local renewable, or low emission energy, sources for two credits. Where evidence is provided to demonstrate that the first credit has been achieved and 15% of total energy demand for the building/development is supplied from local renewable, or low emission energy, sources for three credits.	Renewable & Low Emission Energy	1	1.00%	1				Scott Wilson have been appointed to carry out a renewable energy feasibility study, which will be submitted with the planning application. **It is anticipated that this credit will be achieved, subject to the provision of evidence.**
			2	2.00%	1		1		Biomass fuel is proposed, to provide a contribution of at least 10% of the site's energy demand. It is uncertain at this stage whether a 15% contribution will be reached. **It is anticipated that at least one of two credits will be achieved.**
P 12	Where evidence is provided to demonstrate that the external lighting design is in compliance with the guidance in the Institution of Lighting Engineers (ILE) Guidance notes for the reduction of obtrusive light, 2005.	Reduction of Light Pollution	1	1.00%	1				It is understood that all external lighting will be designed such that all light falls within 70 degrees of the downward vertical. **It is anticipated that this credit will be achieved, subject to the provision of evidence.**
		Subtotals	**15**		**7**	**0**	**3**	**5**	
			100%		**47%**	**0%**	**20%**	**33%**	

Table 3 - BREEAM Pre-assessment Results

Credit Ref	Summary of Credit Criteria	Credit Title	Credits Available	Weighted % Worth	A = Would be Achieved	B = Low effort/cost	C = High effort/cost or Uncertain	D = Not achieved	Preliminary Credit Evaluation
Landuse & Ecology									
LE 1	Where evidence is provided to demonstrate that the footprint of the proposed development largely falls within the boundary of land previously developed. To demonstrate compliance; At least 75% of the proposed development's footprint is on an area of land which has previously been developed or used for industrial purposes in the last 50 years.	**Reuse of Land**	1	1.50%	1				The proposed development will take place on an entirely brownfield site. **It is anticipated that this credit will be achieved, subject to the provision of evidence.**
LE 2	Where evidence is provided to demonstrate that the land used for the new development has, prior to development, been defined as contaminated, and where adequate remedial steps have been taken to decontaminate the site prior to construction.	**Contaminated Land**	1	1.50%				1	It is understood that the development is not taking place on land which is known to be contaminated, and therefore no remediation measures are proposed. **It is anticipated that this credit will not be achieved.**
LE 3	Where evidence is provided to demonstrate that the construction zone is defined as land of low ecological value and all existing features of ecological value will be fully protected from damage during site preparation and construction works.	**Ecological Value & Protection of Features**	1	1.50%	1				It is understood that the construction zone is entirely located on land with low ecological value, and that there are no existing ecological features. For further information on Ecological Value & Protection of Features refer to Appendix 10 attached. **It is anticipated that this credit will be achieved, subject to the provision of evidence.**

Table 3 - BREEAM Pre-assessment Results

Credit Ref	Summary of Credit Criteria	Credit Title	Credits Available	Weighted % Worth	A = Would be Achieved	B = Low effort/cost	C = High effort/cost or Uncertain	D = Not achieved	Preliminary Credit Evaluation
LE 4	2 credits are awarded as follows; Where evidence is provided to demonstrate the change in ecological value of the site, as a result of development, is between less than zero and equal to, or less than, minus nine species, i.e. a small negative change for one credit. Where evidence is provided to demonstrate there is no negative change in the ecological value of the site as a result of development, i.e. equal to, or greater than, zero species for two credits.	**Mitigating Ecological Impact**	**2**	**3.00%**	**2**				It is understood that there will be no negative ecological impact, as the existing site has no ecological value. For further information onMitigating Ecological Impact refer to Appendix 11 attached. **It is anticipated that these credits will be achieved, subject to the provision of evidence.**
LE 6	3 credits are awarded as follows; Where evidence is provided to demonstrate that the design team (or client) has: i) appointed a professional to advise and report on enhancing and protecting the ecological value of the site; and ii) implemented the professional's recommendations for general enhancement and protection for site ecology for one credit. Where evidence is provided to demonstrate a positive increase in the ecological value of the site of up to (but not including) 6 species for two credits. Where evidence is provided to demonstrate a positive increase in the ecological value of the site of 6 species or greater for three credits.	**Enhancing Site Ecology**	**1** **2**	**1.50%** **3.00%**	**1** **1**			 **1**	It is understood that an ecologist is currently involved in the development, and that their recommendations will be taken into consideration in the design process. **It is anticipated that this credit will be achieve, subject to the provision of evidence.** No change in ecological value is anticipated. **It is anticipated that one of two credits will be achieved.**

Table 3 - BREEAM Pre-assessment Results

Credit Ref	Summary of Credit Criteria	Credit Title	Credits Available	Weighted % Worth	A = Would be Achieved	B = Low effort/cost	C = High effort/cost or Uncertain	D = Not achieved	Preliminary Credit Evaluation
LE 6	2 credits are awarded as follows; For one credit: Where evidence is provided to demonstrate that the client has committed to achieving the mandatory requirements listed below and at least two of the additional requirements. For two credits: Where evidence is provided to demonstrate that the client has committed to achieving the mandatory requirements listed below and at least four of the additional requirements.	**Longterm Impact on Biodiversity**	**2**	**3.00%**				**2**	The current proposals do not include the preparation of a long term biodiversity action plan. For further information on Longterm Impact on Biodiversity refer to Appendix 9 attached. **It is anticipated that these credits will not be achieved.**
		Subtotals	**10**		**6**	**0**	**0**	**4**	
			100%		**60%**	**0%**	**0%**	**40%**	

DISCLAIMER

This report has been prepared by Scott Wilson Ltd using all reasonable skill, care and diligence on behalf of the consultant. The study to which this report relates has been carried out in accordance with the strict quality requirements prescribed by the Building Research Establishment (BRE).

In order to prepare this report, Scott Wilson has made use of evidence supplied by the design team. At this stage the evidence presented comprises of responses from the design team relating to an initial indication of potential criteria. Scott Wilson's professional liability is strictly limited to the provision of assessment services against criteria set out by the Building Research Establishment (BRE). The consultant accepts no responsibility for misinformation or inaccurate information supplied by any third party as part of this assessment.

This report has been prepared for exclusive use by the client, and on no account is to be made available to any other party without the prior consent of Scott Wilson and its client. All information contained within this report is to be held in the strictest of confidence between Scott Wilson and the client. Should any other party decide to rely upon the contents of this report, they do so at their own risk without recourse to Scott Wilson.
If the reader disagrees with any statement, or finds any information contained within this report to be inaccurate, Scott Wilson request that the writer is informed immediately.

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APPENDIX 1. DETAILS OF THE BREEAM METHODOLOGY

BREEAM is a tool that allows professionals with a vested interest in buildings to review and improve environmental performance throughout their life cycle. In the UK, BREEAM has been accepted as representing best practice and is now being used extensively by property professionals to provide a benchmark for the environmental performance of buildings that they are designing, refurbishing or operating. BREEAM is flexible and can be applied to provide a benchmark of environmental performance at any stage of the building's life cycle, through assessment against three principal components as follows.

CORE

The issues assessed as part of the core component provide a comparative assessment of a building's environmental impact during operation. Core issues are addressed during both Design & Procurement and Management & Operation Assessments and cover essential elements of key environmental topic areas: health & well-being, energy, transport, water, materials and pollution. They can be applied at any stage of the building's lifecycle, providing a consistent tool for the property market.

DESIGN & PROCUREMENT

This usually takes place during the detailed design stage of all new build and refurbished designs. It includes an assessment of issues under key topic areas that are of relevance during the design process such as construction project commissioning and cooling tower design. Thermal comfort, predicted noise, building materials selection, re-use of facades and specification of thermal insulation materials. It also includes an assessment of sub-elements to additional key topic areas of land-use (contaminated land, remediation, etc) and ecology (habitat diversity, habitat enhancement etc).

MANAGEMENT & OPERATION

This part of the assessment method is carried out for buildings that are currently occupied and in operation. It provides professionals with an independent audit of the manner in which the existing building is being managed, and includes an assessment of those elements under key topic areas that are considered to be of relevance to the management and operation of a building, such as: environmental policy; environmental management systems (EMS); domestic hot water system design/maintenance; energy consumption, monitoring, targeting; heating system design/ maintenance; transport policies and plans; etc.

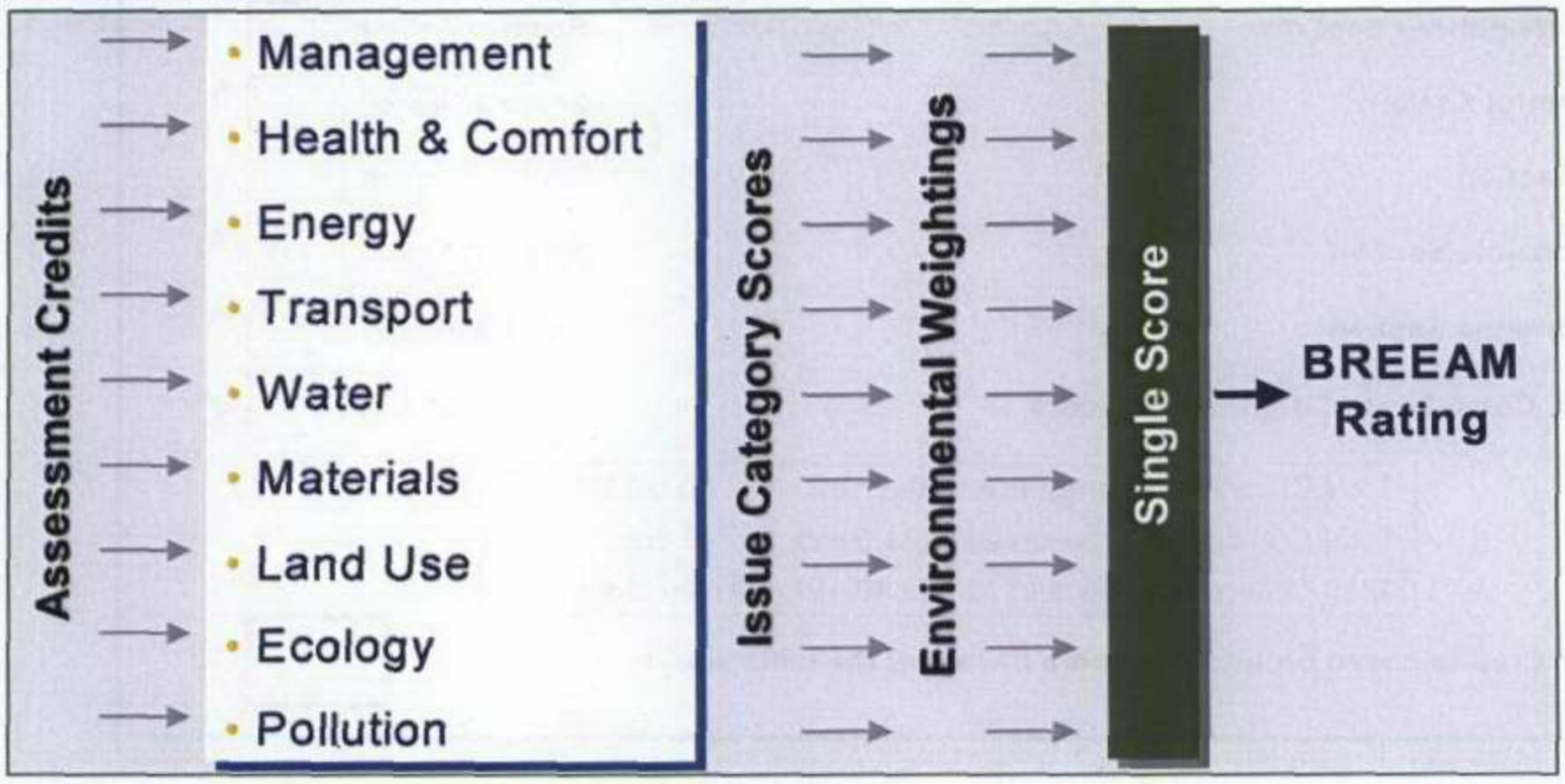
BREEAM

Using BREEAM, a building is assessed against a range of environmental issues covering impacts of a global, regional, local and indoor scale. For each issue, there are a number of credits available. Where a building attains or exceeds various benchmarks of performance, an appropriate number of credits are awarded.

Although a wide range of credits is available for each assessment, each credit does not carry equal importance to the overall score. The findings are weighted based upon their perceived importance as determined by consensus, achieved through detailed research and consultation by BRE with a variety of interest groups including:

Government Policy Makers	Developers and Investors
Construction Professionals	Environmental Groups and Lobbyists
Local Authorities	Academics
Materials Producers	

The weightings obtained as a result of this research are applied to the individual issue categories to provide an overall BREEAM Assessment score.



Depending upon the number of credits attained in the various issue categories, the results are translated into a corresponding overall rating as follows:

Excellent (70%+);
Very Good (55%+);
Good (40%+), or;
Pass (25%+).

APPENDIX 2. CONSIDERATE CONSTRUCTORS SCHEME M4.

Checklist A1 Considerate Constructors

NOTE: For each of the eight sections (below) the Considerate Constructors Scheme awards a score on a scale of 0 to 5 (with half points). The score achieved or required must be entered into boxes 1-8 below i.e. EITHER 0; 0.5; 1; 1.5; 2.0; 2.5; 3.0; 3.5; 4.0; 4.5; OR 5.0.

- When a firm commitment is made to achieve certification under the Considerate Constructors Scheme without reference to particular scores, a score of 3 should be entered in each of the boxes 1-8 below. This gives a total score of 24 in box 9 below and subsequently one credit can be awarded.
- When a firm commitment is made to require the constructor to achieve certification AND a score greater than 3 is required in one or more sections, the scores required should be added in boxes 1 to 8 below and totalled accordingly.

POST CONSTRUCTION REVIEW
When formal certification can be demonstrated the actual scores achieved in each section should be quoted. No points will be achieved if any score falls below 3, as certification cannot be achieved.

Considerate Section	Score achieved	1
Environmentally Aware Section	Score achieved	2
Site Cleanliness Section	Score achieved	3
Good Neighbour Section	Score achieved	4
Respectful Section	Score achieved	5
Safe Section	Score achieved	6
Responsible Section	Score achieved	7
Accountable Section	Score achieved	8
TOTAL Considerate Constructors Score	(sum of 1-8)	**9**

Total CC score achieved is less than 24	0 credits
Total CC score is between 24 to 31.5 incl.	1 credit
Total CC score is between 32 and 40 incl.	2 credits

Award Credits based on total CC Score based on the table above 10

APPENDIX 3. CONSTRUCTION SITE IMPACTS M5.

Checklist A3 – Construction site impacts

a. Commitment to monitor, report and set targets for CO_2 production or energy use arising from site activities

1. Confirmation is required that monthly measurements of energy use will be recorded and displayed on site.
2. Appropriate target levels of energy consumption must be set and displayed (targets could be annual, monthly, or project targets).
3. As a minimum monitoring must include checking the meters and displaying some form of graphical analysis in the site office to show consumption over the project duration and how actual consumption compares to the targets set.
4. The design/site management team is to nominate an individual who will be responsible for the monitoring and collection of data.

Note:

1. Targets for energy consumption during the construction process can be set using DTI's Environmental KPI benchmarks. These documents do not specify targets but facilitate projects in setting appropriate targets (see references section of main credit for further details).
2. BREEAM does not require targets to be met but is encouraging the process of setting , monitoring and reporting against targets.

b. Commitment to monitor and report CO_2 or energy arising from commercial transport to and from the site

1. Confirmation is required that a site monitoring system will be in place to monitor and record deliveries. This system will need to record:
   a. The number of deliveries,
   b. The mode of transport,
   c. The kilometres/miles travelled for all deliveries;
      i. Where the delivery is specifically for the site, a figure of total distance travelled should be used, i.e. a round trip (from the point of origin, to the site and back to the point of origin),
      ii. Where the delivery to the site is part of a multiple delivery route, the recorded figure for distance travelled should be the distance travelled to the site (from the previous delivery), plus the distance to the next delivery or return.
2. This information can then be used to estimate a total figure for kg of CO_2 for the project. BREEAM does not require this information to be converted to CO_2 but the information

must be made available to the senior project and site management staff / suppliers to establish benchmarks and aid future decision making towards improving site and transport efficiency. If the project team wishes to convert this information into CO_2 emissions, there are tables provided at the end of this checklist, which can be used.

3. If the design team or contractor confirms that the project is aiming to achieve the "Construction Site Transport" 'measures for traffic movements and distances' (published April 2003, see references) then this aspect has been achieved automatically. The information obtained for this item can also be used to satisfy the DTI's Environmental KPI on transport.

Note: Please see further information below on monitoring site transport CO_2.

c. Commitment to monitor, report and set targets for water consumption arising from site activities

1. Compliance is demonstrated by the design / site management team confirming, in writing, that monthly measurements of water consumption will be recorded and displayed on site.

2. Appropriate target levels of water consumption must be set and displayed (targets could be annual, monthly or project targets).

3. As a minimum monitoring must include checking the meters and displaying some form of graphical analysis in the site office to show consumption over the project duration and how actual consumption compares to targets set.

4. The design/site management team is to nominate an individual who will be responsible for the monitoring and collection of data.

Note:
1. Targets for water consumption during the construction process can be set using DTI's Environmental KPI benchmarks. These documents do not specify targets but facilitate projects in setting appropriate targets (see references section of main credit for further details).
2. BREEAM does not require targets to be met but is encouraging the process of setting , monitoring and reporting against targets.