Sustainable Construction Technical Advice Note CHECKLIST 5:
Major Non-Residential and Multi-Residential Development (1000 sqm or 0.5ha or above)
Sustainability Checklist

Issue	Requirement	Check (Yes, No or N/A)	Design Stage Evidence	Construction Stage Evidence	Details/Comments
The following are required in all cases unless exceptional circumstances:					
Energy Efficiency	BREEAM NC excellent mandatory		BREEAM interim certificate showing BREEAM excellent rating.	BREEAM post construction certificate showing BREEAM excellent rating.	
Green Energy	20% improvement of CO_2 emissions: BER over TER in SBEM data[1]		Design stage SBEM data showing BER before & after inclusion of green energy - this to be at least 20% improvement over TER entirely due to on site renewable energy	As built stage SBEM data showing BER before & after inclusion of green energy - this to be at least 20% improvement over TER entirely due to on site renewable energy.	
Passive Design	BREEAM NC Ene 04 (passive design analysis) credit*		BREEAM design stage assessment showing credit achieved	BREEAM post construction stage assessment showing credit achieved	
Electric Charging	On-site car parking (where at least 10 spaces) to have at least 1 EV charger[2] and cable routes for 1 in 5 spaces		Design stage plans and specifications	Photographic evidence of installed product	
Water Use	BREEAM 2no. Wat 01 credits*		BREEAM design stage assessment showing credits achieved	BREEAM post construction stage assessment showing credits achieved	
Waste	At least 1 of the BREEAM NC Wst 01diversion of resources from landfill credits*		BREEAM design stage assessment showing credit achieved	BREEAM post construction stage assessment showing credit achieved	
Materials	At least half of available standard BREEAM NC* Material credits.		BREEAM design stage assessment showing credits achieved	BREEAM post construction stage assessment showing credits achieved	

	Strategy for use of any re-used, recycled or other green materials		Provide written strategy	Evidence how strategy carried out in the completed construction	
	Selection of certified 'Grown in Britain' or FSC timber in construction		Confirmation Grown in Britain or FSC certified timber to be specified for building elements	Written evidence of Grown in Britain or FSC certification	
Adaptation to Climate Change	1 flood resilience and 2 SuDS BREEAM NC Pol 03 credits*		BREEAM design stage assessment showing credits achieved	BREEAM post construction stage assessment showing credits achieved	
	BREEAM NC Wst 05 credit*		BREEAM design stage assessment showing credit achieved	BREEAM post construction stage assessment showing credit achieved	
The following are expected where feasible and appropriate:					
Adaptation to Climate Change	Retain existing mature trees, hedges or water features or other native habitats		Layout plan showing all proposed retained and removed trees, hedges, water features or other native habitats	As built Layout plan showing all retained and removed trees, hedges, water features or other native habitats.	
	Provide SuDS systems for all hard surfaces		Layout plan to show all proposed SuDS features	As built Layout plan showing all SuDS features	
	Provide shade with deciduous trees		Landscape or layout plan to indicate where existing or proposed deciduous trees to provide shade to garden space or to internal living spaces vulnerable to overheating in heatwaves.	Confirm no changes or provide evidence of changes	
	Building design minimises overheating		Building design such as orientation, generous window reveals, natural ventilation, brise soleil	Confirm no changes or provide evidence of changes	
	New water features, e.g. pond		In landscape plan	Confirm no changes or provide evidence of changes	
	At least 10% of total roof area green roofs Green walls where appropriate		Landscape plan	Confirm no changes or provide evidence of changes and provide management plan	

	Natural ventilation (opening windows)		Building design	Confirm no changes or provide evidence of changes	
	Reduce mains water use		Water calculator	As built water calculator	
	Select native trees and plants		Landscape plan	Landscape plan	
	Design drought resistant gardens		Landscape plan	Landscape plan	
	Provide green infrastructure links across the site		Landscape plan	Landscape plan	
The following are encouraged:					
Passive House Standard	Passive house principles or full certification for the whole development		Building design to meet passive house metrics or design has passive house certification	Building design to meet passive house metrics or design has passive house certification	
Materials	Use alternatives to plastic windows and doors		Annotated plans and specifications 1:10 or 1:20 scale drawings of specimen windows and doors	Photographic evidence of installed product	

*Or equivalent in future BREEAM updates

1. This is generated in the design stage SBEM data calculation that is already required for building regulations.
2. A minimum power rating output of 7kW, untethered Mode 3 or equivalent chargepoint, fitted with a universal socket that can charge all types of electric vehicle currently on the market and meets relevant safety and accessibility requirements.

Standard Conditions for Major Non-Residential (and Multi-residential) Development (1000 sqm or 0.5ha or above)

1. Prior to the commencement of the development hereby permitted detailed information in a design stage sustainable construction report in the form of:
   a) interim stage BREEAM NC certification and associated assessment report
   b) design stage SBEM calculations
   c) product specifications
   d) Grown in Britain or FSC certificates
   e) sustainable material strategy
   f) building design details
   g) layout or landscape plans

   demonstrating that the development has:

   a) achieved BREEAM NC excellent standard
   b) has reduced predicted CO_2 emissions by at least 20% due to on site renewable energy compared with the maximum allowed by building regulations
   c) provided at least one EV charger and cable routes for 1 in 5 spaces
   d) achieved specific BREEAM NC credits:
      i. Ene 04 (passive design analysis);
      ii. Wst 01diversion of resources from landfill credit;
      iii. At least half of Material credits;
      iv. 2 no. SuDS Pol 03 credits;
      v. Wst 05 credit;
   e) has provided sustainable drainage
   f) enhanced green infrastructure and GI linkage and adaptation to climate change
   g) and has selected sustainable materials

   shall be submitted to and approved in writing by the Local Planning Authority. The development shall be built in accordance with these agreed details.

Reason: To ensure development demonstrates a high level of sustainable performance to address mitigation of and adaptation to predicted climate change.

2. Prior to the occupation of the dwelling hereby permitted detailed information in a post construction stage sustainable construction report in the form of:
   a) post construction stage BREEAM NC certification and associated assessment report
   b) post construction SBEM calculations
   c) product specifications
   d) Grown in Britain or FSC certificates
   e) sustainable material strategy
   f) building design details
   g) layout or landscape plans

   demonstrating that the development has:

   a) achieved BREEAM NC excellent standard
   b) has reduced predicted CO_2 emissions by at least 20% due to on site renewable energy compared with the maximum allowed by building regulations
   c) provided at least one EV charger and cable routes for 1 in 5 spaces
   d) achieved specific BREEAM NC credits:
      i. Ene 04 (passive design analysis);
      ii. Wst 01 diversion of resources from landfill credit;
      iii. At least half of Material credits;
      iv. 2 no. SuDS Pol 03 credits;
      v. Wst 05 credit;
   e) has provided sustainable drainage
   f) enhanced green infrastructure and GI linkage and adaptation to climate change
   g) and has selected sustainable materials

   shall be submitted to and approved in writing by the Local Planning Authority. The development shall be occupied in accordance with these agreed details and these details will hereafter be retained.

   Reason: To ensure development demonstrates a high level of sustainable performance to address mitigation of and adaptation to predicted climate change.

GLOSSARY

BRE

The Building Research Establishment (BRE) is a multi-disciplinary, building science centre with is focused on how to improve buildings and infrastructure, through research and knowledge generation. The BRE is the owner of the BREEAM assessment method.

BREEAM NC

The Building Research Establishment Environmental Assessment Method (BREEAM) New Construction is an assessment method covering a wide range of sustainable performance issues in new development, namely: Management, Health and Wellbeing, Energy, Transport, Water, Materials, Land Use and Ecology and Pollution, There are different standards relating to the percentage of points achieved, namely Pass (30%), Good (45%), Very Good (55%), Excellent (70%) and Outstanding (85%).

DER and TER

The Dwelling Emission Rate (DER) and the Target Emission Rate (TER) are the headline CO_2 figures which SAP Calculations measure. These figures will determine whether a new dwelling passes or fails on its carbon emission targets set within Part L of the building regulations.

EV

Electric Vehicle

Passive House Certification

All proposed Passivhaus (or 'passive house') designs for residential or non-residential buildings must undergo energy modelling conducted via the Passivhaus Planning Package (PHPP.) Tests ensure these targets are met, completing the quality assurance process. A certificate is only issued if the exactly defined criteria have been met without exception. Learn more about the different classes & certification process for Passivhaus buildings. For more general information on passive house buildings see http://www.passivhaustrust.org.uk/

SAP

The Standard Assessment Procedure (SAP) is the methodology used by the Government to assess and compare the energy and environmental performance of dwellings in Part L of the building regulations.

SBEM

Simplified Building Energy Model (SBEM) is a software tool developed by BRE that provides an analysis of a building's energy consumption. It is used for non-residential buildings like SAP is for new homes.

SWMP

A site waste management plan (SWMP) is a document that describes, in detail, the amount and type of waste from a construction project and how it will be reused, recycled or disposed of.

SuDS

Sustainable Drainage Systems (SuDS) are designed to reduce the potential impact of new and existing developments with respect to surface water drainage discharges. The Authority expects there to be an emphasis on multi-functional SuDS which also have water quality, biodiversity and amenity enhancement values wherever possible.