Sustainable Construction Technical Advice Note CHECKLIST 4:
Minor Non-Residential Development (more than 250m^2, less than 1000m^2 and less than 0.5ha) Sustainability Checklist

Issue	Requirement	Check (Yes, No or N/A)	Design Stage Evidence	Details/Comments
The following are required in all cases unless exceptional circumstances:				
Energy Efficiency	10% improvement of CO_2 emissions: BER over TER in SBEM data[1]		Design stage SBEM data showing BER **10%** less than TER entirely due to energy efficiency (or **20%** overall improvement)	
Green Energy	A further 10% improvement of CO_2 emissions: BER over TER in SBEM data[1]		Design stage SAP data showing BER **10%** less than TER entirely due to on site renewable energy (or **20%** overall improvement)	
The following are encouraged:				
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	
	Provide SuDS systems for all hard surfaces		Layout plan to show all proposed 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.	

	Building design minimises overheating		Building design such as orientation, generous window reveals, natural ventilation, brise soleil	
	New water features, e.g. pond		In landscape plan	
	Green roofs or green walls		Landscape plan	
	Reduce mains water use		Water calculator	
	Select native trees and plants		Landscape plan	
	Design drought resistant gardens		Landscape plan	
	Provide green infrastructure links across the site		Landscape plan	
Passive House	Passive house principles or full certification		Building design to meet passive house metrics or design has passive house certification	
Water Use	Water efficient measures		Set out water efficient measures such as water efficient fittings and appliances, leak detection	
Materials	Strategy for use of any re-used, recycled or other green materials		Provide written strategy	
	Selection of certified 'Grown in Britain' or FSC timber in construction		Confirmation Grown in Britain or FSC certified timber to be specified for listed building elements	
	Use alternatives to plastic windows and doors		Annotated plans and specifications 1:10 or 1:20 scale drawings of specimen windows and doors	

1. This is generated in the design stage SBEM data calculation that is already required for building regulations.

Standard Conditions for Minor Non-Residential Development (More than 250m², less than1000m² 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) SBEM calculations
   b) product specifications
   c) Grown in Britain or FSC certificates;
   d) sustainable material strategy
   e) building design details
   f) layout or landscape plans

   demonstrating that the dwelling has:

   a) reduced predicted CO_2 emissions by at least 10% due to energy efficiency and;
   b) reduced predicted CO2 emissions by a further 10% due to on site renewable energy compared with the maximum allowed by building regulations

   and further optional measures relating to:

   c) water consumption
   d) adapting to climate change
   e) sustainable materials
   f) sustainable waste

   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 development hereby permitted detailed information in a post construction stage sustainable construction report in the form of:
   a) SBEM calculations passive house certificates
   b) product specifications
   c) Grown in Britain or FSC certificates;
   d) sustainable material strategy
   e) building design details

f) layout or landscape plans

demonstrating that the dwelling has:

a) reduced predicted CO_2 emissions by at least 10% due to energy efficiency and;
b) reduced predicted CO2 emissions by a further 10% due to on site renewable energy compared with the maximum allowed by building regulations

and further optional measures relating to:

c) water consumption
d) adapting to climate change
e) sustainable materials
f) sustainable waste

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.