



Sustainability Standards Checklist

Sustainability standard	Compliance with standard	Useful links
A Net zero carbon		
1. Has the building fabric been designed to standards of ultra-low energy demand?	<p>To achieve ultra-low energy demand through design, these energy use intensity (EUI) targets should be met:</p> <ul style="list-style-type: none"> • Residential <35 kwh/m2.yr • Office <55 kwh/m2.yr • Research labs <55-240 kwh/m2.yr • Retail <80 kwh/m2.yr • Community space (e.g. health care) <100 kwh/m2.yr • Sports and Leisure <80 kwh/m2.yr • School <65 kwh/m2.yr <p>Predictive energy modelling should be used, for example Passive House Planning Package, CIBSE TM54 or equivalent and carried out with the intention of meeting target EUIs.</p> <p>Include the EUI target and explain what design measures have been included, for example form factor (efficiency of shape), glazing ratio, fabric performance,</p>	<p>Net Zero Carbon Toolkit: https://www.westoxon.gov.uk/environment/climate-action/how-to-achieve-net-zero-carbon-homes/</p> <p>Project LEO – Local Energy Oxfordshire: https://project-leo.co.uk/</p> <p>Cosy Homes Plan Builder: https://app.cosyhomesoxfordshire.org/</p> <p>LETI Climate Emergency Design Guide: https://www.leti.london/cedg</p> <p>LETI Climate Emergency Retrofit Guide: https://www.leti.uk/retrofit</p> <p>LETI Embodied Carbon Primer: https://www.leti.london/ecp</p>

	ventilation type and heating/cooling equipment performance.	<p>Levitt Bernstein Easi Guide Passivhaus Design: https://www.levittbernstein.co.uk/research-writing/easi-guide-to-passivhaus-design/</p> <p>CIBSE TM52 The limits of thermal comfort: avoiding overheating (2013): https://www.cibse.org/knowledge/knowledge-items/detail?id=a0q2000000817f5AAC</p> <p>CIBSE TM54 Evaluating operational energy use at the design stage (2022): https://www.cibse.org/Knowledge/knowledge-items/detail?id=a0q2000000817f7AAC</p> <p>CIBSE TM59 Design methodology for the assessment of overheating risk in homes (2017): https://www.cibse.org/knowledge/knowledge-items/detail?id=a0q0000000DvrTdQAL</p> <p>CIBSE TM65 Embodied carbon in building services: A calculation methodology (2021): https://www.cibse.org/knowledge/knowledge-items/detail?id=a0q3Y000000IPZOhQAP</p> <p>BRE Green Guide to Specification: https://www.bregroup.com/greenguide/podpage.jsp?id=2126</p> <p>RIBA Embodied and whole life carbon assessment for architects: https://www.architecture.com/knowledge-and-resources/resources-landing-page/whole-life-carbon-assessment-for-architects</p>
2. Has thermal comfort and the risk of overheating been assessed and passive design measures been prioritised?	Explain how thermal comfort and the risk of overheating has been assessed, and how passive design measures to mitigate for overheating risk have been prioritised over energy intensive alternatives, and in compliance with CIBSE TM52 for non-domestic buildings and CIBSE TM59 for domestic buildings.	
3. Is the development fossil fuel free?	No gas boilers. Explain what alternative heating systems will be installed, for example heat pumps or fully electrified system.	
4. Will a net zero operational carbon balance be achieved and 100% of energy consumption delivered using renewables?	The development should achieve a zero-operational carbon balance and deliver 100% of energy using renewables. Include total kWh/yr of energy consumption of the buildings, accounting for both regulated and unregulated energy, on the site, and the total kWh/yr of energy generation by renewables to show that the zero carbon operational balance is met.	
5. Will embodied carbon emissions be minimised?	Explain how the development will minimise embodied carbon emissions. Cross reference lifecycle modelling, carried out to assess embodied carbon.	

B Travel		
1. Is home working supported?	Explain what provisions have been made to support home working, for example home study, dedicated work space, shared community work space.	Oxfordshire County Council active travel: https://www.oxfordshire.gov.uk/residents/roads-and-transport/connecting-oxfordshire/active-travel-0
2. Has active travel been prioritised?	Explain how walking, cycling and public transport use will be prioritised over road users on the site and connections strengthened with the surrounding area. Multimodal interchanges should be considered. Include details of routes and facilities, for example cycle parking, SMART bus stops.	Cycle infrastructure design (LTNI/20): https://www.gov.uk/government/publications/cycleinfrastructure-design-ltn-120 Oxfordshire County Council electric vehicles: https://www.oxfordshire.gov.uk/residents/environment-and-planning/energy-and-climate-change/electric-vehicles Infrastructure for charging electric vehicles: Approved Document S: https://www.gov.uk/government/publications/infrastructure-for-charging-electric-vehicles-approved-document-s
3. Is shared mobility facilitated?	Explain how shared mobility will be facilitated, for example through investment in EV car clubs.	
4. Will electric vehicle charging infrastructure be provided?	Provide details of infrastructure for the charging of electric vehicles, including scooters and bikes.	Oxfordshire Innovation Framework for Planning and Development: https://ehq-production-europe.s3.eu-west-1.amazonaws.com/88ac2c237fb12082d0d3b0584bde872dd4395887/original/1640104467/2c918d4a71e4f21c7302c01517b6566c_Draft_Innovation_Framework.pdf?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIA4KKNQAKICO37GBEP%2F20230524%2F%2F%2Faws4_request&X-Amz-Date=20230524T231921Z&X-Amz-Expires=300&X-Amz-SignedHeaders=host&X-Amz-Signature=eb8647f512cf029fb3edcd33db29a327ca041fba06ed2d53128b9d8109a62946
C Water		
1. Will water consumption be minimised?	<75 litres per person per day should be strived for. Include water efficiency calculations. For multiple building types, provide a cross section that is representative of the development.	RIBA 2030 Climate Challenge Version 2 (2021): https://www.architecture.com/about/policy/climate-action/2030-climate-challenge UWLA Water Calculator: http://www.thewatercalculator.org.uk/

<p>2. Will water be conserved through rainwater harvesting or grey water recycling?</p>	<p>Explain what water conservation measures will be included, for example water butts or more advanced systems.</p>	<p>Sanitation, hot water safety and water efficiency: Approved Document G: https://www.gov.uk/government/publications/sanitation-hot-water-safety-and-water-efficiency-approved-document-g</p>
<p>3. Has the flood risk assessment accounted for climate change and is sustainable drainage proposed?</p>	<p>Confirm that the flood risk assessment has accounted for climate change and explain the sustainable drainage measures Cross reference the Flood Risk Assessment (FRA) and ecological reports, where applicable.</p>	<p>BREEAM Non-domestic Buildings Technical Manual: https://www.breeam.com/NC2018 Environment Agency Guidance on Rainwater harvesting: regulatory position statement: https://www.gov.uk/government/publications/rainwater-harvesting-regulatory-position-statement/rainwater-harvesting-regulatory-position-statement</p> <p>HVRH Rainwater harvesting design and installation guide (2016): https://www.cibse.org/knowledge/knowledgeitems/detail?id=a0q2000000817ogAAC</p> <p>Oxfordshire County Council Local standards and guidance for surface water drainage on major development in Oxfordshire: https://www.oxfordshirefloodtoolkit.com/wp-content/uploads/2022/01/LOCAL-STANDARDS-AND-GUIDANCE-FOR-SURFACE-WATER-DRAINAGE-ON-MAJOR-DEVELOPMENT-IN-OXFORDSHIRE-Jan-22-2.pdf</p> <p>Preparing a flood risk assessment: standing advice: https://www.gov.uk/guidance/flood-risk-assessment-standing-advice</p> <p>Check the long term flood risk for an area in England: https://www.gov.uk/check-long-term-flood-risk</p> <p>CIRIA The SuDS Manual: https://www.ciria.org/ItemDetail?ProductCode=C753&</p>

		<p>Susdrain: https://www.susdrain.org/</p> <p>Green roofs and living walls: https://livingroofs.org/</p>
D Waste		
1. Will the construction company be registered with the Considerate Construction Scheme?	Confirm in the Sustainability Statement that the construction company used will be registered with the Considerate Construction Scheme.	<p>Considerate Constructors Scheme: https://www.ccscheme.org.uk/</p> <p>Wrap: http://www.wrap.org.uk</p> <p>Newham Waste Management Guidelines for Architects and Property Developers: https://www.newham.gov.uk/downloads/file/632/wastemanagementguidelinesarchitectspropertydevelopers</p>
2. Will a Site Waste Management Plan be followed and targets set for construction waste recycling and disposal?	Confirm that a Site Waste Management Plan (SWMP) will be followed and targets set for construction waste recycling and disposal.	
3. Will there be safe and convenient access for waste recycling?	Explain how safe and convenient access for waste recycling will be provided. Cross reference layout plans.	
E Voluntary standards		
1. Will non-domestic development be BREEAM certified?	Provide details of the BREEAM rating. Cross reference BREEAM pre-assessment, where applicable.	<p>BREEAM: https://bregroup.com/products/breem/</p>

<p>2. Will the development receive a sustainability accreditation and/or follow recognised sustainability principles?</p>	<p>Provide details of the sustainability accreditation and/or recognised sustainability principles, for example One Planet Living and Building with Nature.</p>	<p>Building with Nature: https://www.buildingwithnature.org.uk/about</p> <p>One Planet Living: https://www.bioregional.com/one-planet-living</p>
<p>F Only for development affecting heritage assets or traditional buildings</p>		
<p>1. Have the heritage value of the building(s) and impact on any heritage asset been appropriately assessed?</p>	<p>Summarise how the heritage value of the building(s) has been assessed and heritage assets are affected. Cross reference the Heritage Statement.</p>	<p>West Oxfordshire Design Guide 16 Greener Traditional Buildings: https://www.westoxon.gov.uk/media/thplpsay/16-design-guide-greener-traditional-buildings.pdf</p> <p>Historic England Statements of Heritage Significance: https://historicengland.org.uk/images-books/publications/statements-heritage-significance-advice-note-12/heag279-statements-heritage-significance/</p>
<p>2. Is a whole building approach being taken?</p>	<p>Provide details of the whole building approach.</p>	<p>Historic England Retrofit and Energy Efficiency in Historic Buildings: https://historicengland.org.uk/advice/technical-advice/energy-efficiency-and-historic-buildings/</p>
<p>3. Will responsible retrofit measures be adhered to?</p>	<p>Explain how the development will adhere to responsible retrofit measures.</p>	<p>Building Regulations, Approved Documents and Historic Buildings: https://historicengland.org.uk/advice/technical-advice/building-regulations/</p> <p>Historic England Planning responsible retrofit of traditional buildings: https://historicengland.org.uk/images-books/publications/planning-responsible-retrofit-of-traditional-buildings/</p> <p>STBA Responsible Retrofit Guidance Wheel: https://stbauk.org/guidance-wheel/</p>

		<p>BSI PAS 2035/2030 - Retrofitting dwellings for improved energy efficiency https://www.bsigroup.com/en-GB/blog/built-environment-blog/how-our-new-energy-retrofit-pdf-will-help-improve-energy-efficiency/</p> <p>BS 7913:2013: Guide to the conservation of historic buildings https://knowledge.bsigroup.com/products/guide-to-the-conservation-of-historic-buildings/standard</p> <p>BREEAM Technical Manual for Refurbishment of Domestic Buildings: https://www.breeam.com/domrefurb2014manual/</p>
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