

**Appendix to the Environmental Design and Construction Checklist:  
Acceptable supporting evidence to show compliance with points on the Checklist**

**General**

|   | <b>Acceptable supporting evidence</b>                      |
|---|--|
| G1 Have existing buildings suitable for renovation been researched prior to the decision to build new?  | Statement of research; email correspondence                |
| G2 Has consideration been given to the maintenance requirements of all building features, ensuring that these are kept to a minimum and can be easily understood by the building occupants? | Statement of maintenance requirements; Building User Guide |

**Energy**

| <b>E1 Designing for low energy use</b>   | <b>Acceptable supporting evidence</b>  |
|--|--|
| a) Is the main glazed elevation oriented within 30° of south, with a correspondingly small proportion of glazing on the north elevation? | Architectural plan showing building orientation and glazing                    |
| b) Have high occupancy rooms been located on the south side, and rooms with low occupancy or high internal heat gains to the north?      | Architectural plan showing building orientation and internal layout            |
| c) Has solar shading of glazed areas been provided?  | Elevations showing solar shading strategy                                      |
| d) Have exposed building elements with high thermal mass been included?  | Design abstract detailing type, size and position of material(s)               |
| e) Does the building have a shallow plan layout, or incorporate a central courtyard for daylighting?                                     | Architectural plan showing building measurements                               |
| f) Have 'buffer zones' been incorporated at main entrances?  | Architectural plan showing buffer zones  |
| g) Is shading and shelter provided by strategic planting outside the building?   | Architectural plan showing building orientation and proposed planting strategy |
| h) Have external surfaces been designed to reflect light and warmth?   | Design abstract detailing type(s) of material and/or finish                    |
| i) Where 'conventional' natural daylighting is not possible, have sunpipes been incorporated?  | Architectural plan showing position of sunpipes                                |

**OR**

| <b>E1 Designing for low energy use</b>   |  |
|--|--|
| Using the space on page 9, describe how the building has been designed for low energy use, including consideration of location, orientation, building materials and positioning of glazed areas. | Architectural plans showing low energy features as given on page 9 |

| <b>E2 Energy conservation and efficiency – building fabric</b>  | <b>Acceptable supporting evidence</b>              |
|---|--|
| a) Does the building design improve at least 10% on the CO <sub>2</sub> emission rate required by Part L of the Building Regulations? | SAP/SBEM calculation, BER/TER calculation          |
| b) Have window systems with a maximum U-value of 1 been specified throughout the building?  | Window specification document                      |
| c) Have airtightness levels of 5m <sup>3</sup> /m <sup>2</sup> /h @ 50Pa been designed and specified for the building?                | Contractor's specification                         |
| d) Does the design specification stipulate airtightness testing of the building to take place prior to completion?                    | Design specification document                      |
| e) Has air-conditioning been avoided?   | M&E services specification                         |
| f) Does the building design include passive or low-energy ventilation systems?  | Design specification<br>M&E services specification |

| <b>E3 Space heating and hot water</b>   | <b>Acceptable supporting evidence</b>           |
|---|---|
| a) Has the viability of different renewable heat technologies been thoroughly explored?           | Feasibility study or report of options explored |
| b) Has the most efficient heating system viable (heat generator plus distribution) been selected? | M&E services specification                      |

| <b>E4 Electricity</b>  | <b>Acceptable supporting evidence</b>           |
|--|---|
| a) Has the viability of different renewable electricity technologies been thoroughly explored? | Feasibility study or report of options explored |
| b) Have the most efficient electrical services and appliances viable been selected?            | M&E services specification                      |

## Water

| <b>WAT1 Water conservation and recycling</b>  | <b>Acceptable supporting evidence</b>  |
|---|--|
| a) Will water use per building occupant per year be reduced to less than 4.4m <sup>3</sup> through use of water-efficient and low-water appliances? | M&E services specification including calculations of water use per building occupant |
| b) Has major leak detection equipment been specified on all mains water supplies to the building?   | M&E services specification   |
| c) Has rainwater harvesting and/or greywater recycling been incorporated into the building design?  | M&E services specification   |

| <b>WAT2 Minimising flood risk and surface water pollution</b>  | <b>Acceptable supporting evidence</b>                    |
|--|--|
| a) Does the roof provide a suitable overhang or other solution to protect the building from damage caused by heavy rainfall?   | Elevations showing size of roof overhang                 |
| b) Are the foul-water and surface-water drainage systems separate?   | Drainage plan  |
| c) Have the principles of Sustainable Urban Drainage (SUDS) been adopted in the building design? (E.g. permeable paving, green roofs, swales – see the accompanying guidance document for more information.) | Documentation of the proposed SUDS strategy for the site |
| d) Where SUDS techniques cannot be employed around the building, have oil separators been specified?   | Drainage plan  |
| e) Have gutters and downpipes been sized to allow for future increases in rainfall events?   | Elevations<br>Design specification                       |

| <b>WAT3 Managing ground conditions</b>   | <b>Acceptable supporting evidence</b>          |
|--|--|
| Has the design included precautionary measures regarding any risk of subsidence or landslip caused by increased surface water runoff attributable to climate change? | Design specification<br>Architectural drawings |

## Biodiversity

| <b>B1 Site assessment</b>   | <b>YES</b>        |
|---|-------------------|
| a) Has a biodiversity assessment, to include an ecological data search and surveys, covering buildings and adjacent land, been performed?                   | Ecological report |
| b) Has an assessment of the ecological impact of the proposed works on wildlife habitats and species within the site boundary and on nearby land been made? | Ecological report |

| <b>B2 Biodiversity protection</b>   | <b>YES</b>   |
|---|--|
| a) Have measures been specified to protect habitats and species during and after development? | Ecological report, method statement, management plan |
| b) Where habitat or species loss is unavoidable, have mitigation measures been agreed?        | Ecological report, design specification              |

| <b>B3 Biodiversity enhancement</b>  | <b>YES</b>   |
|---|--|
| a) Have measures to enhance the biodiversity value of the site been identified? | Ecological report, design specification, management plan |

## Materials

| M1 General principles   | Acceptable supporting evidence |
|---|--------------------------------|
| <i>For each of the major building elements listed below, are the materials used A-rated in the BRE's Green Guide to Specification? (See the accompanying guidance document for more information.)</i> |                                |
| Foundations   | Extracts from Green Guide      |
| Walls   |                                |
| Roof  |                                |
| Structure   |                                |
| Internal partitions   |                                |
| Finishes  |                                |
| Rainwater goods   |                                |
| Internal drainage   |                                |
| Underground drainage  |                                |
| Ducting   |                                |

| M2 Construction materials – other issues  | Acceptable supporting evidence   |
|---|--|
| a) Have/will all temporary and permanent timber and wood-derived products be obtained from legal and sustainable sources? (Follow the steps outlined in section M2 of the Guide.) | Tender specification, contract preliminaries, ITT, copies of PEFC/FSC certificates, sample invoices/delivery notes |
| b) Has timber been specified for the building's structural frame and other above ground structural members, in preference to steel or concrete?                                   | Design specification   |
| c) If concrete has been specified for any element of the building, have the alternatives been considered?   | Design specification   |
| d) Will the contractor be obliged to provide chain of custody certificates for all supplied timber?   | Design specification   |
| e) Does the project specification exclude uPVC windows, doors, cladding, pipework and cable insulation?   | Materials specification  |
| f) Have insulation materials with low embodied energy and high thermal performance been specified?  | Materials specification  |
| g) Have the external elements of the building been designed to be resilient in exceptionally hot, stormy and/or wet weather conditions?   | Materials specification showing durable properties of external elements  |

| M3 Fixtures, fittings and finishes  | Acceptable supporting evidence            |
|---|---|
| a) Have natural/untreated materials been specified wherever possible?                         | Materials specification                   |
| b) Have flood resilient materials been specified inside the building?                         | Materials specification                   |
| c) To avoid waste, have specified finishes been approved by the end user before installation? | Written confirmation of end user approval |
| d) Have uPVC and other plastics been avoided wherever possible?                               | Materials specification                   |
| e) Have VOC-free (Volatile Organic Compounds) paints and finishes been specified?             | Materials specification                   |

## Waste

| WAS1 Construction and demolition waste   | Acceptable supporting evidence                          |
|--|---|
| <i>Site Waste Management Plans (SWMPs), now a legal requirement for large construction projects, are compulsory for all Council projects with a capital cost of £250,000 or more. However, ALL projects should consider the following:</i> |   |
| a) Has the project been designed to use standard sizes/quantities of materials? (See the accompanying guidance document for further information.)  | Design statement  |
| b) Have materials from any demolition on site been considered for re-use?  | Design statement  |
| c) Have materials and components been specified that can easily be broken down to their constituent parts at the end of the building's life, for re-use elsewhere?   | Design statement  |
| d) In projects over the £250,000 threshold, has the designer made a statement for the SWMP about how waste has been minimised through design?  | Designer's draft for SWMP                               |
| WAS2 Designing for minimisation of waste-to-landfill in use  | Acceptable supporting evidence                          |
| e) Has designated space been provided internally and externally for recyclable waste storage?  | Architectural plan showing location of waste facilities |

## Travel

| T1 Travel   | YES  |
|---|--|
| a) Policy T1 of the Calderdale Unitary Development Plan (UDP) requires that new developments over a certain size produce a Travel Plan prior to seeking planning permission. If required, has a coherent and comprehensive Travel Plan been prepared? | Travel Plan  |
| b) Has parking provision been minimised in accordance with best practice?   | Site layout  |
| c) Have designated car-sharing spaces and/or pool cars been included in the design?   | Site layout  |
| d) Have adequate secure, covered cycle storage facilities been included in the design? (See UDP Policy T19 for minimum requirements on new developments.)   | Site layout  |
| e) Have shower and changing facilities, including lockable storage for clothing and equipment, been included in the design?   | Design specification/architectural plan showing location of facilities |
| f) Will pedestrian and cycle access be safe, attractive and well-maintained?  | Design statement   |