Mat 2 Hard landscaping and boundary protection | 0 of 1 credits achieved

Credit criteria

One credit where evidence provided demonstrates that at least 80% of the combined area of external hard landscaping and boundary protection specifications achieve an A or A+ rating, as defined by the *Green Guide to Specification*.

Credit validation

It was considered that external hard landscaping and boundary protection will not achieve an A rating as defined by the Green Guide.

Credit references

Assumption by Lugus Engineering.

Further information/action

The following demonstrates compliance:
Where at least 80% of all external hard landscaping and boundary protection (by area) achieves an A or A+ rating, as defined in the *Green Guide to Specification*.

Green Guide ratings for the specification(s) of each element can be found at:
www.thegreenguide.org.uk

Mat 3 Re-use of building façade | 0 of 1 credits achieved

Credit criteria

One credit 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.

Credit validation

The new project is not reusing the facade of the existing primary building.

Credit references

Assumption based on drawings provided by Ramsden and Partners.

Further information/action

Evidence required to award credit:

- Drawings demonstrating the reuse of 50% of total façade by area
- Calculations demonstrating that more than 80% of the reused façade (by mass) comprises in-situ reused material

Mat 4 Re-use of building structure

0 of 1 credits achieved

Credit criteria

One credit where evidence provided demonstrates 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 less than 50% of the final structure's volume.

Credit validation

The new project is not reusing the structure of the existing primary building.

Credit references

Assumption based on drawings provided by Ramsden and Partners.

Further information/action

Evidence required to award credit:

- Drawings or calculations indicating the sections of the existing structure to be reused
- Drawings or calculations indicating the areas to be demolished and the total new structure

Mat 5 Responsible sourcing of materials

2 of 3 credits achieved

Credit criteria

Up to 3 credits are available where evidence provided demonstrates that 80% of the assessed materials in the following building elements are responsibly sourced:

a. Structural Frame; Ground floor; Upper floors (including separating floors); Roof; External walls; Internal walls; Foundation/substructure; and Staircase.

Additionally 100% of any timber must be legally sourced.

Credit validation

All the materials are responsibly sourced

Credit references

Confirmation given by Ramsden and Partners.

Further information/action

The following demonstrates compliance:

- At least 80% of the following applicable materials comprising the building elements (listed above) must be responsibly sourced:

    a. Brick (including clay tiles and other ceramics)
    b. Resin-based composites and materials, including GRP and polymeric render
    c. Concrete (including in-situ and pre-cast concrete, blocks, tiles, mortars, cementious renders etc.)
    d. Glass
    e. Plastics and rubbers (including EPDM, TPO, PVC and VET roofing membranes including polymeric renders)
    f. Metals (steel, aluminium etc.)
    g. Dressed or building stone including slate
    h. Timber and wood panel (including MDF, chipboard and Cement Bonded Particleboard)
    i. Plasterboard and plaster
    j. Bituminous materials, such as roofing membranes and asphalt
    k. Other mineral-based materials, including fibre cement and calcium silicate
    l. Products with recycled content

Note: Insulation materials, fixings, adhesives and additives are excluded from the assessment. For any other materials that form a part of an applicable building element, but do not fit into the applicable materials list or the exclusions list, please refer to BRE who will identify the relevant Key Process and Supply Chain Process or Processes.

- Each applicable material is assigned to a responsible sourcing tier level based on the level and scope of certification achieved by the material supplier(s)/manufacturer(s).
- Any non-certified timber used in the development comes from a legal source and is not included on the CITES list.

Exemplary level requirements

The following outlines the exemplary level requirements to achieve an *innovation credit* for this BREEAM issue:

Where, in addition to the above requirements, 95% of the applicable materials, comprised within the applicable building elements, have been responsibly sourced.

Mat 6 Insulation

1 of 2 credits achieved

Credit criteria

One credit where evidence provided demonstrates that thermal insulation products used in the building have a low embodied impact relative to their thermal properties, determined by the *Green Guide to Specification* ratings.

One credit where evidence provided demonstrates that thermal insulation products used in the building have been responsibly sourced.

Credit validation

The insulation will be responsible sourced.

Credit references

Confirmation given by Ramsden and Partners.

Further information/action

The following demonstrates compliance:

Any new insulation specified for use within the following building elements must be assessed: External walls; Ground floor; Roof; Building services.

First credit - Embodied Impact

- The Green Guide rating for the thermal insulation materials must be determined. Green Guide ratings for thermal insulation can be found at: www.thegreenguide.org.uk
- Where the *Insulation Index* for the building insulation is the same as or greater than 2.

Second credit - Responsible Sourcing

- At least 80% of the thermal insulation used in the building elements identified above must be responsibly sourced.

Mat 7 Design For Robustness

0 of 1 credits achieved

Credit criteria

One credit where protection is given to vulnerable parts of the building such as areas exposed to high pedestrian traffic, vehicular and trolley movements.

Credit validation

It was considered that suitable durability and protection measures will not be applied to the areas of this building which are exposed to high pedestrian traffic, vehicular and trolley movements.

Credit references

Assumption by Lugus Engineering.

Further information/action

The following demonstrates compliance:

1. Internal and external areas of the building where vehicular, trolley and pedestrian movement occur have been identified.

2. Suitable durability and protection measures or design features have been specified to prevent damage to the vulnerable parts of these building areas from such traffic. This must include, but not be limited to:

- Protection from the effects of high pedestrian traffic in main entrances, public areas and thoroughfares (corridors, lifts, stairs, doors etc).
- Protection against any internal vehicular/trolley movement within 1m of the internal building fabric in storage, delivery, corridor and kitchen areas.
- Protection against, or prevention from, any potential vehicular collision where vehicular parking and manoeuvring occurs within 1m of the external building façade for all car parking areas and within 2m for all delivery areas.

Waste

The following table summarises the credits awarded for this section.

The Code Credit Reference	Number of Credits Achieved	Number of Credits Available
Was 1 - Construction Site Waste Management	3	4
Was 2 - Recycled aggregates	1	1
Was 3 - Recyclable waste storage	1	1
Was 6 - Floor Finishes	1	1
TOTAL CREDITS	6	7

Wst 1 Construction Site Waste Management

3 of 4 credits achieved

Credit criteria

Up to three credits are available where evidence provided demonstrates that the amount of non-hazardous construction waste (m3/100m2 or tonnes100m2) generated on site by the development is the same as or better than good or best practice levels.

One credit where evidence provided demonstrates that a significant majority of nonhazardous construction waste generated by the development will be diverted from landfill and reused or recycled.

Credit validation

The amount of waste generated on site will be within the requirements to achieve two credits, and this waste will be diverted from landfill by reusing or recycling.

Credit references

Confirmation given by Ramsden and Partners.

Further information/action

The following demonstrates compliance:

Up to three credits are available

Where non-hazardous construction waste generated by the building's construction phase (excluding demolition and excavation waste) meets or exceeds the following resource efficiency benchmarks:

BREEAM credits	Amount of waste generated per 100m2 (gross internal floor area)	
	m3	tonnes
One	13.0 – 16.6	6.6 – 8.5
Two	9.2 – 12.9	4.7 – 6.5
Three	<9.2	<4.7

* Volume (m3) is actual volume of waste (not bulk volume)

Where there is a Site Waste Management Plan (SWMP) that contains:

- The target benchmark for resource efficiency i.e. m3 of waste per 100m2 or tonnes of waste per 100m2
- Procedures and commitments for minimising non-hazardous waste in line with the benchmark
- Procedures for minimising hazardous waste
- Procedures for monitoring, measuring and reporting hazardous and non-hazardous site waste
- Procedures for sorting, reusing and recycling construction waste into defined waste groups (see additional guidance section), either on site or through a licensed external contractor
- The name or job title of the individual responsible for implementing the above.

One credit is available

Where at least 75% by weight or 65% by volume of non-hazardous construction waste generated by the project has been diverted from landfill and either:

- **Reused on site (in-situ or for new applications)**
- **Reused on other sites**
- **Salvaged/reclaimed for reuse**
- **Returned to the supplier via a 'take-back' scheme**
- **Recovered from site by an approved waste management contractor and recycled.**

For demolition projects, in addition to the above requirement for construction-related waste, 90% by weight or 80% by volume of non-hazardous demolition waste has been diverted from landfill.

Where there is a Site Waste Management Plan (SWMP) complying with the above requirements.

Waste materials will be sorted into separate key waste groups (according to the waste streams generated by the scope of the works) either onsite or offsite through a licensed contractor for recovery.

Exemplary level requirements
The following outlines the exemplary level requirements to achieve an *innovation credit* for this BREEAM issue.

Where non-hazardous construction waste generated by the building's development meets or exceeds the resource efficiency benchmark required to achieve three credits (as outlined above).

Where at least 90% by weight (80% by volume) of non-hazardous construction waste and 95% of demolition waste by weight (85% by volume) (if applicable) generated by the build has been diverted from landfill and either:

- **Reused on site (in-situ or for new applications)**
- **Reused on other sites**
- **Salvaged/reclaimed for reuse**
- **Returned to the supplier via a 'take-back' scheme**
- **Recovered from site by an approved waste management contractor and recycled.**

All key waste groups are identified for diversion from landfill at pre-construction stage SWMP.

Wst 2 Recycled aggregates

1 of 1 credits achieved

Credit criteria

One credit where evidence provided demonstrates that 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.).

Credit validation

More than 25% (by weight) of the total high grade aggregate will be recycled or secondary sourced.

Credit references

Confirmation given by Ramsden and Partners.

Further information/action

The following demonstrates compliance:

Where the amount of recycled aggregate specified is over 25% (by weight) of the total high grade aggregate uses. Recycled aggregate can be either

- Obtained on site or
- Obtained from sites within a 30 km radius or
- Obtained from a recycled, non construction post-consumer / post-industrial by-product source, such as crushed/blown glass pellets, PFAs, blast furnace slag, etc

High Grade aggregate uses are considered to be

- Structural frame
- Floor slabs including ground floor slabs
- Asphalt based or similar road surfaces
- Gravel landscaping
- Site-derived masonry as hardcore under ground floor slabs, site roads and car parking areas

In order to award credit, details of the specified uses and required weight of all aggregates and recycled aggregates must be provided. Any commitment to use recycled aggregates must be supported by:

Details of where the materials will be sourced
Confirmation that the amount and quality required can be sourced as claimed

Wst 3 Recyclable waste storage

1 of 1 credits achieved

Credit criteria

One credit where evidence provided demonstrates that 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).

Credit validation

The project will include a dedicated waste storage for materials that can be recycled.

Credit references

Assumption based on drawings provided by Ramsden and Partners.

Further information/action

A provision of the following required to demonstrate compliance with credit requirements:

Provision of a central dedicated storage space, which should be

- clearly labelled
- placed within easy reach of all building areas (e.g. less than 20m from the base of a stairwell
- serving all floors)
- with good vehicular access

Size of the storage should be at least $2m^2$ per 1000 m^2 of net floor area, with a max. of $10m^2$

In order to award credit, following is required:

- The location and scale of any storage provision should be established
- Evidence that the space is clearly labelled for the purpose of recyclable waste
- Plans should be marked up to show location and size of the storage space together with details of the labelling

Wst 6 Floor Finishes

1 of 1 credits achieved

Credit criteria

One credit where carpets and other floor finishes are specified by the future occupant or, in tenanted areas of speculative buildings, where carpets or floor finishes are installed in a limited show area only.

Credit validation

The floor finishing will be specified by the future occupant

Credit references

Confirmation given by Ramsden and Partners.

Further information/action

The following demonstrates compliance:

For tenanted areas (where the future occupant is not known), prior to full fit-out works, carpets and other floor finishes have been installed in a show area only.

In a building developed for a specific occupant, that occupant has selected (or agreed to) the specified floor finishes.