**NGS JARGON BUSTER: THEME: BIODIVERSITY Index:**

AIR BARRIER

Comprises materials and/or components which are air impervious or virtually so, separating conditioned spaces (heated, cooled or humidity controlled, usually inside) from unconditioned spaces (unheated, un-cooled, humidity uncontrolled, usually outside).

(Biodiversity Book 2nd edition)

AIR EXFILTRATION

The uncontrolled outward leakage of indoor air through cracks, discontinuities and other unintentional openings in the building envelope.

In winter the air is likely to be heated, and heated air exfiltration will result in uncontrolled heat loss and potential interstitial condensation risk.

(Biodiversity Book 2nd edition)

AIR INFILTRATION

The uncontrolled inward leakage of outdoor air through cracks, discontinuities and other unintentional openings in the building envelope.

In winter the air is likely to be cold, and cold air infiltration will result in uncontrolled draughts, leading to thermal discomfort and condensation risk.

(Biodiversity Book 2nd edition)

AIR LEAKAGE PATH

A route by which air enters or leaves a building, or flows through a component, and can destroy the integrity of the fabric’s acoustic, fire, thermal, wind, weather, water and air-tightness performance.

During the heating season, air passing through air leakage paths will carry heat, increase energy demand and increase the carbon footprint of the building and its occupants.

(Biodiversity Book 2nd edition)

AIR-TIGHTNESS

This relates to the ‘leakiness’ of a building.

The smaller the leakage for a given pressure difference across a building, the tighter the building envelope.

(Biodiversity Book 2nd edition)

AIR-TIGHTNESS LAYER

A layer built into the external envelope to minimise air infiltration/exfiltration.

(Biodiversity Book 2nd edition)

BIODIVERSITY ACTION PLAN (BAP)

Describes the UK’s biological resources, and commits a detailed plan for conserving and enhancing species and habitats, in addition to promoting public awareness and contributing to international conservation efforts.

(Biodiversity Book 2nd edition)

BIODIVERSITY ACTION REPORTING SYSTEM (BARS)

This is the UK’s Biodiversity Action Plan reporting system.

It includes national, local and company Biodiversity Action Plans (BAPs) and all UK Biodiversity Strategies and Action Plans.

Reports on status and trends, as well as targets and outcomes for species on the UK BAP list are available to download on the Biodiversity Action Reporting System

www.ukbap-reporting.org.uk/default.asp

(Biodiversity Book 2nd edition)

BIODIVERSITY

Biodiversity (biological diversity) is the number and variety of all living organisms, including genetic, species and ecosystem diversity.

It includes all wildlife, plants, bacteria and viruses, and their habitats, and this variety is vital to a well-functioning ecosystem.

(Biodiversity Book 2nd edition)

BIRD OF CONSERVATION CONCERN (BOCC)

The UK’s leading bird conservation organisations have worked together on the third quantitative review of the status of the birds (BOCC3) that occur regularly here.

A total of 246 species have been assess and placed on one of three lists – green, amber and red – indicating an increasing level of conservation concern.

(Biodiversity Book 2nd edition)

BREEAM

BREEAM (BRE Environmental Assessment Method) is a Sustainability Assessment Tool.

Sustainability assessment tools are used to measure the sustainability of a construction or building, including the contribution played by recycled and secondary aggregates, via an index or scoring system.

(Biodiversity Book 2nd edition)

CARBON SEQUESTRATION

Carbon sequestration in construction usually refers to building products derived from plant materials such as wood and hemp, where CO2 is absorbed as part of the growing process.

(Biodiversity Book 2nd edition)

CELLULAR BLOCK

(see Extruded cellular fired-clay block construction)

(Biodiversity Book 2nd edition)

CEMENT PARTICLEBOARD

Contains particles of wood fibre (like chipboard (wood particle board)) bound together by cement.

It has strength, moisture resistance, durability and thermal mass.

(Biodiversity Book 2nd edition)

CROSS-LAMINATED TIMBER PANELS (CLTP)

A method of construction which makes use of forest thinnings of small diameter.

(Biodiversity Book 2nd edition)

CODE FOR SUSTAINABLE HOMES

An environmental assessment method and national standard for rating and certifying the performance of new homes.

(Biodiversity Book 2nd edition)

DECREMENT DELAY

Refers to the time it takes for heat generated by the sun to transfer from the outside to the inside of the building envelope and affect the internal conditions.

(Biodiversity Book 2nd edition)

ECOLOGICAL ASSESSMENT

A comprehensive assessment of the likely ecological impacts of proposed developments on a site.

This can take place on any type or size of site.

(Biodiversity Book 2nd edition)

ECOLOGY SURVEY

A survey providing baseline information about the ecological characteristics of a site, including the presence or potential for protected species and their habitats.

(Biodiversity Book 2nd edition)

ECOSYSTEM SERVICES

These refer to the benefits that humankind receives from natural ecosystems including many resources and processes.

(Biodiversity Book 2nd edition)

EUROPEAN PROTECTED SPECIES (EPS)

Certain types of animal and plant are recognised as species of European Community interest and in need of strict legal protection.

The list of species protected under European law includes bats, otters and newts.

(Biodiversity Book 2nd edition)

EUROPEAN PROTECTED SPECIES (EPS) LICENCE

Some activities or works can affect protected species or their habitats, and in these instances a license is necessary.

To make sure you do not break the law, you must apply for a licence if you propose to do anything that would affect protected species or their breeding, resting or shelter places in ways the legislation makes illegal.

(Biodiversity Book 2nd edition)

EXTERNAL WEATHER ENVELOPE

Consists of roof (pitched shallow or flat roofs) or roof terraces and recessed balconies, external walls and doors, windows and roof lights.

Occasionally there are also soffits to projecting or bridging rooms over drives and passageways, or a soffit of suspended ground floors.

(Biodiversity Book 2nd edition)

ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

For larger projects or for those in more sensitive sites where projects are likely to have a significant environmental effect, an Environmental Impact Assessment (EIA) will be a legal requirement.

An EIA covers a broad range of factors, such as the effects on soil, water, air, climate and landscape,

and the effects on humans, as well as species and habitat considerations.

(Biodiversity Book 2nd edition)

EMBODIED ENERGY

The components of embodied energy are the growing or mining, manufacturing, transportation, assembly or installation, demolition and disposal energy.

(Biodiversity Book 2nd edition)

ENVIRONMENTAL PERFORMANCE INDICATORS (EPI)

Environmental Performance Indicators (EPIs) are needed when evaluating the environmental performance of, for example, activities, processes, hardware and services.

(Biodiversity Book 2nd edition)

EXTERNAL INSULATED RENDER SYSTEMS (EIRS)

External finish to external solid walls (historic (where permitted): stone or brick, modern: brick or blockwork).

(Biodiversity Book 2nd edition)

GREEN INFRASTRUCTURE (GI)

A term used to refer to the living network of green spaces, water and other environmental features in both urban and rural areas.

(Biodiversity Book 2nd edition)

HABITAT

The area or environment where an organism or ecological community normally lives or occurs.

(Biodiversity Book 2nd edition)

HABITAT CREATION

The establishment of a new habitat, often required as compensation for development and loss of an ecosystem.

Can include bat box installations and pond creations.

(Biodiversity Book 2nd edition)

LUMINAIRE

light fitting or unit designed to distribute light from a lamp.

(Biodiversity Book 2nd edition)

MOISTURE MASS

Walls with absorbent surfaces are said to have moisture mass.

Materials with moisture-absorbent properties, for example unfired clay, can be used as a plaster skim or finish on walls and ceilings.

If there is a sufficient amount of the material and when the air is saturated, the clay can absorb moisture from the atmosphere and hold it in the body of the material until conditions improve, then release the moisture again.

(Biodiversity Book 2nd edition)

MOISTURE TRANSPORT

The ability of a material to transport moisture from one place to another, for example a place where interstitial condensation or moisture ingress is occurring to a place where it can evaporate away when conditions permit.

(Biodiversity Book 2nd edition)

PARGE COAT

A single base coat of plaster applied to the inside face of masonry walls to achieve a level of air-tightness before applying plasterboard drylining.

(Biodiversity Book 2nd edition)

PASSIVE SOLAR ORIENTATION

Orientating towards or facing the sun, and positioning rooms on the correct side of the building to gain the heat.

Overshadowing by other building and trees can complicate this process.

(Biodiversity Book 2nd edition)

PHOTOVOLTAIC CELLS (PV)

A module incorporating a semiconductor that generates electricity when exposed to daylight or sunlight.

(Biodiversity Book 2nd edition)

RAINSCREEN CLADDING

A design principle involving a screen to stop rain and wind driven rain from penetrating to the inner components and passing through the wall to the inside.

(Biodiversity Book 2nd edition)

SIPS STRUCTURAL INSULATION PANEL SYSTEM

A panellised MMC (Modern Method of Construction) using foamed insulation as a part of the structural performance of the panel, thus enabling reduced thickness of panel whilst maintaining strength.

(Biodiversity Book 2nd edition)

SOLAR GAIN

Direct solar radiation from the sun’s rays passing through windows, roof lights and glazed areas to provide warmth to rooms and spaces.

Optimal gains come from south to south- west facing glazed areas.

(Biodiversity Book 2nd edition)

SOLAR SHADING SHELVES (BRISE SOLEIL)

These are sunlight and daylight shading shelves above windows.

(Biodiversity Book 2nd edition)

SOLAR BLINKERS

These are sunlight and daylight shading blades besides windows, usually placed to the south of east or west facing windows.

(Biodiversity Book 2nd edition)

SUSTAINABLE DRAINAGE SYSTEMS (SuDS)

Surface water drainage methods that take account of water quantity, water quality and amenity issues are collectively referred to as Sustainable Drainage Systems (SuDS).

SuDS components can include soak-aways, ponds or wetlands but also permeable paving, green roofs, bio-retention trenches, swales, rain gardens etc.

http://www.susdrain.org/

(Biodiversity Book 2nd edition)

THERMAL MASS

The ability of construction materials to absorb, store and release heat.

Buildings constructed of dense materials, such as bricks or concrete, usually have a better thermal mass than lightweight buildings, such as timber, but choice of finishing materials can provide it.

(Biodiversity Book 2nd edition)

THERMAL STORE

A thermal store is a structure typically made from a material with high thermal mass.

These materials are capable of absorbing and retaining heat, for example usually, but not solely, from the sun, and slowly releasing the heat back into the building when space temperature falls.

(Biodiversity Book 2nd edition)

TIMBER FRAME

Timber frame as we know it is not timber post and beam construction used in traditional building construction.

Today the term is used to describe timber stud framework, usually panellised (sometimes known as cassette panels), which may or may not be pre-insulated.

They are usually available as kits or to bespoke designs.

(Biodiversity Book 2nd edition)

U VALUE

This is a measure of thermal transmittance through the fabric of a building.

U values give a measure of air-to-heat transmission (loss or gain) due to the thermal conductance of the material, for example from inside to outside a building.

The lower the U value, the lower the building fabric’s thermal conductance (k-value) and the better the material performs thermally.

Approved Document L to the Building Regulations and the Code for Sustainable Homes dictate the maximum U value of elements of buildings; designers can improve on these.

(Biodiversity Book 2nd edition)

U VALUE ENVELOPE

This refers to all the parts of the external envelope of the building that keep the heat in and the cold out.

It is not always the same as the external envelope.

(Biodiversity Book 2nd edition)

UNIMPROVED GRASSLAND

This is permanent grassland that has either never been subject to agricultural improvement or where that improvement was insignificant and the effects have now disappeared.

(Biodiversity Book 2nd edition)

ZERO CARBON

Since the publication of the Government’s plans to achieve zero carbon in all new homes from 2016, and in all new non- domestic buildings from 2019, there have been calls from the industry for a clear definition of ‘zero carbon’.

The basic definition is that a zero carbon home is one whose net carbon dioxide emissions, taking account of emissions associated with all energy use in the home, is equal to zero or negative across the year, as outlined by the then Minister of State, John Healey MP, in August 2009.

(Biodiversity Book 2nd edition)

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