

The Changing Shape of Biodiversity in the Built Environment

Exploring the role of
Eco-habitats in the drive
for Biodiversity Net Gain



Specialist Report 2022


Wienerberger

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Foreword

As a gardener, botanist and environmental campaigner, for the last 15 years, I have seen first hand not only what catastrophic impacts human beings can have on the natural world, but crucially, what a vital role we have to play in habitat regeneration and the protection of a myriad of species.

In the UK we have seen a decline in many species over the last 200 years. Take birds as an example; a group in which 43% of species are considered threatened in the UK (this compares to a figure of 13% in Europe - Gillings, 2017) and we know of seven extinctions in the last two centuries. Many previously common birds like fieldfares and turtle doves are now considered critically endangered. And that is just the picture for our feathered friends. We know now that regenerating habitats are built from the bottom up; from the fungi and bacteria, through insects, plants of all sizes and functions, amphibians, small mammals, reptiles and birds and eventually to large mammals and birds; grazers, predators and everything in-between. Without food sources at the bottom of those chains, there is no scope for habitat regeneration.

The ideal scenario is that habitat is not lost in the first place. Experience has taught us that preserving and conserving existing habitat is always superior to rebuilding it. But in a world that makes large demands of us and in a landscape that is ever-changing at the hands of development and growth, doing what we can to mitigate habitat loss and lend a helping hand to species wherever we encounter them in the building process, seems the very least we can do. Sustainable, considerate and habitat rich construction, whether for new projects or for renovations, can allow species to move quickly back into their environment, and live alongside us with minimal disruption.



Frances Tophill

The biodiversity challenge





In an increasingly environmentally-conscious world, there is a 'biodiversity trilemma' impacting those responsible for the delivery of new construction projects. Whilst specifiers and developers are seeking solutions to meet ever-stringent legislation, some popular species of bats and birds continue to decline in the UK. At the same time, greater awareness of mental health and an increased appreciation of outdoor urban spaces is changing consumer priorities when it comes to biodiversity.

All this is set against a backdrop of global environmental focus, driven by the UN Biodiversity Conference COP15 and other wider global directives such as the Glasgow Climate Pact and Paris Agreement.

The main outcome of COP15 in 2021 was the adoption of the Kunming Declaration, which commits countries to collaborate on developing and implementing an ambitious post-2020 global biodiversity framework for reversing biodiversity loss and putting the planet on a pathway to recovery by 2030.

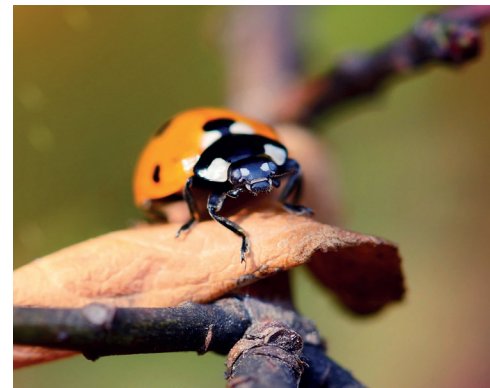
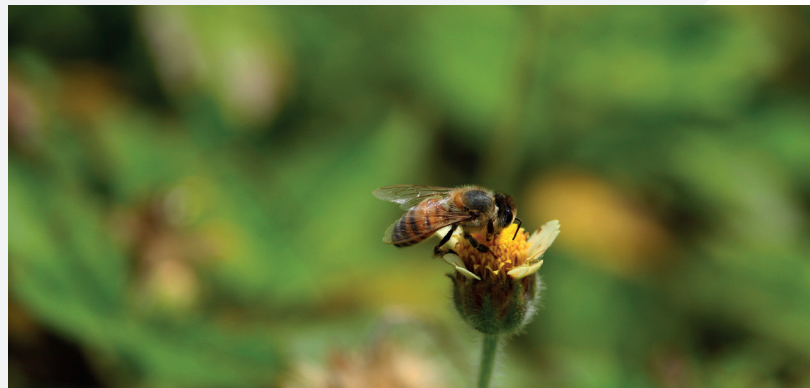
Green infrastructure has also been touted as the key to sustainable recovery from COVID-19, capable of securing investment whilst being mindful of the global climate challenges which were highlighted in the IPCC's (Intergovernmental Panel on Climate Change) Sixth Assessment Report published in 2021.



Creating spaces, not replacing spaces

The resulting pressures placed on those involved in delivering urban spaces whilst meeting Biodiversity Net Gain requirements are both complex and unprecedented.

Biodiversity is no longer a box ticking exercise. Instead, greater awareness, consumer demand and regulatory drivers are increasing the relevance and penetration of biodiversity measures, which should be designed into every project from the outset.



1. Regulatory drivers

Key legislation changing the shape of biodiversity in the built environment includes:

- ✓ The National Planning Policy Framework (NPPF), raising the bar for biodiversity standards.
 - In 2012, NPPF required developers to “seek net gains for biodiversity where possible”
 - In 2019 the wording was changed to state: “Opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity”
 - In 2021 it was updated again to drive integration through design: “Opportunities to incorporate biodiversity improvements in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity”
- ✓ The Environment Bill, which was given Royal Assent in November 2021, will introduce a mandatory Biodiversity Net Gain of at least 10% on or near new developments and introduce legally binding targets to halt species decline by 2030.
 - Biodiversity net gain will be measured using a complex calculation based on Natural England Metric 3.0, which replaced DEFRA’s Biodiversity Metric.
- ✓ Specific legislation designed to protect individual species, including:
 - The Wildlife and Countryside Act 1981 (as amended)
 - The Conservation of Habitats and Species Regulations 2017
 - Individual European Protected Species Licensing

2. Decline in species abundance

If the legislative and regulatory pressures placed on the value chain were not enough, there is also a moral obligation to help mitigate the current state of decline in UK wildlife.

- ✓ The 2019 State of Nature Report shows 41% of UK species studied have declined since 1970. Of more than 8,000 species assessed by the report, 15% are at risk of disappearing from the UK altogether.
- ✓ Bat numbers have fallen dramatically over the last 50 years. Our most common bat, the common pipistrelle, has declined by almost 70%.
- ✓ House sparrows have declined by around 50% and are now red listed as a species of high conservation concern.
- ✓ Swifts saw a 53% decline between 1995 and 2016 and have moved on to the red list.
- ✓ Starling numbers have fallen by 66% since the mid-1970s – now red listed as a bird of high conservation concern.

3. A matter of hearts and minds

The third consideration in the ‘biodiversity trilemma’ for new developments is changing consumer attitudes to outdoor urban spaces.

- ✓ Driven by a greater awareness of wellbeing and enhanced appreciation of space since the outbreak of COVID-19, there is a renewed focus on nature. For example, the Royal Society for the Protection of Birds (RSPB) recorded a 69% increase in web traffic between March and May 2020 compared with the same period in 2019, including a tenfold increase in views of its ‘build a bird box’ web page.
- ✓ As homeowners and commercial property tenants become more environmentally aware, developments that support local wildlife will become more attractive. Biodiversity has become a vital sales and marketing tool, not just a box-ticking exercise to support planning consent.



Reconnecting with nature





Biodiversity Net Gain is an approach to development that leaves biodiversity in a better state than before. The policy of ‘no net loss’ has not worked. Now, driven by these particular factors identified earlier, architects and developers need to do something different in order to achieve biodiversity targets.

By planning for nature, architects and specifiers can support developers and building users to reconnect with nature. But this relies on making informed, data-driven decisions on projects which are shaped by early communication and collaboration.

Breaking down barriers – building nature into design

“Biodiversity Net Gain is costly and complicated”

Architects and specifiers now have access to a wide range of measures to help achieve the necessary ecological enhancements and ensure Biodiversity Net Gain. Often these will work together to help contribute to the net gain required. For example, whilst they don’t specifically gain points in the Biodiversity Net Gain calculation tool, Eco-habitats provide a fuss-free and inexpensive option, which can be introduced as supplementary enhancements to provide durable and discrete habitats for British birds, bats, bees and other species.

“Biodiversity Net Gain is merely a nice to do”

Recent changes in planning frameworks and the imminent introduction of the Environment Act 2021 mean Biodiversity Net Gain is now a critical requirement in order to secure planning consent for new developments. Under the NPPF, developers are at risk of not securing planning consent if they do not integrate biodiversity improvements within their design.

“Building users are not interested in nature”

As data from the Office for National Statistics demonstrates, COVID-19 restrictions have changed our relationship with nature. Homeowners and commercial property tenants have a greater appreciation of wellbeing and a stronger connection with nature as a result.



A low-angle photograph of a brick building, showing the texture of the bricks and the structure of the roofline. A white triangular graphic element is positioned in the upper right corner, partially obscuring the sky. The text "Introducing Eco-habitats" is overlaid on this white area.

Introducing Eco-habitats

Eco-habitats are supplementary measures that can help to promote biodiversity at a development site. Whilst they don't specifically earn credits in Biodiversity Net Gain calculations, they provide a simple, cost-effective way to supplement biodiversity improvements and can still be included within a project's Biodiversity Net Gain report.

These fuss-free solutions are built on a simple premise. Integrated wildlife boxes offer durable and discrete habitats for British birds, bats and other species, produced to standard brick sizing for ease of installation and supplied ready to be integrated into the fabric of a building as it is built or renovated. Initially driven by architect demand for more discrete and flexible solutions, these boxes suit most building facades, are easy to install and long-lasting.

Bird boxes are tailored to individual species such as swifts, starlings, blue tits, robins, wrens, redstarts and sparrows, providing space for nesting and roosting which is safe from predators. They are usually constructed using insulating concrete block which provides an internal nesting/roost space, with access holes to suit different species, before being cladded with a brick face to match the building fabric.

Bat boxes are also solid boxes made of insulating concrete that provide an internal roost space and are cladded appropriately. Suitable for various species commonly found in the UK, the single chambered unit features an integrated V system to increase the surface for bats to roost against, whilst allowing freedom of movement. These boxes can be supplied in the standard roost or maternity box format.

Solitary bee bricks are produced to UK brick size format so they can be easily installed in place of a standard brick. These feature holes of varying sizes to provide resting space for different species of solitary bee. Solitary bees lay their eggs in these cavities before sealing the entrance with mud and chewed-up vegetation. The offspring then emerge in spring and the cycle repeats.

Rocket bat boxes provide permanent or temporary roosting space to support projects where bats have been identified in a building which is to be demolished and replaced by new premises. They can be installed until permanent Eco-habitat boxes can be installed into the new property.



Bat access roof tiles - Bat access tiles are specifically designed to provide the right kind of space to protect bats from the elements in their new habitat. This is done by offering a simple way to give bats access through small gaps. Modified access roof tiles are also available as a more aesthetically pleasing and subtle option.



Supporting urban wildlife

It is understood with recent changes to farmland and farming practices, urban areas now provide a sizeable lifeline for biodiversity and now hold more species than the countryside, due largely to the provision of essential components for biodiversity. These include shelter and habitats (including by planting native species of plants and trees as part of biodiversity net gain measures), food (including nectar, pollen, fruits and berries), as well as clean and drinkable water.

The addition of nesting and resting sites through the installation of Eco-habitats into new buildings and infrastructure provides further opportunities for wildlife to flourish – and thus increases the perceived value of developments through visual appeal and connections with nature.

Installation and placement

Correct installation and placement of Eco-habitats are fundamental to help ensure successful uptake by the species. These tips will support that objective.

Bat boxes

- ✓ In general, roost boxes can be placed on a southerly, easterly or westerly elevation at a minimum of 2.5 metres from the ground. Maternity boxes should be sited on a southerly elevation in the UK this will be the southerly aspects (south, south-west and south-east), however installation on different elevations will help create different micro-climates/ environmental conditions within the building.
- ✓ Position bat boxes a minimum of 2.5 metres (but preferably five) above ground.
- ✓ Avoid placement above windows, doors and wall climbing plants to reduce the likelihood of predation by cats. A position near the eaves or gable apex of the property would be preferable.
- ✓ To make a bat box a potential roost for a wider range of species, consider whether there are nearby vegetation features such as hedges and treelines. Some bat species use these features for navigation between their roosting site and feeding ground and to avoid flying in open and exposed areas.
- ✓ Always avoid light spill onto integrated boxes.
- ✓ The box should always be laid on a full bed of mortar and all surrounding joints should be fully filled.



Bird boxes

- ✓ Whatever species of bird being targeted, positioning a bird box to northerly/easterly aspects will prevent young from overheating and avoid the wettest winds.
- ✓ Boxes for tits, sparrows, flycatchers and starlings should be positioned two to four metres above ground. Robins and wrens less than two metres above ground. Swifts more than five metres above ground.
- ✓ Make sure that the birds have a clear flight path to the nest without any clutter directly in front of the entrance.
- ✓ Multiple boxes can be used for colonial nesting species such as swift and house sparrow. Bird boxes often support wider range of species than the target species.
- ✓ Avoid placement above windows and doors. A position near the eaves or gable apex of the property is preferable.
- ✓ Always avoid light spill onto integrated boxes.
- ✓ The box should always be laid on a full bed of mortar and all surrounding joints should be fully filled.



Solitary bee bricks

- ✓ Cavities in solitary bee bricks are 75mm deep, which reduces the risk of predation and also ensure bees and their larvae are contained entirely within the specifically designed brick.
- ✓ Bee bricks are produced using a specific insulating concrete block which is free from toxins and can be faced in any brick or stone to fit discreetly.
- ✓ Contrasting colours can be used to highlight the bricks if preferred.
- ✓ Locate bee bricks on a warm elevation, typically a south-facing wall.
- ✓ It is highly recommended to plant bee-friendly plants such as Hellebore, Aubretia, Foxgloves, Lavender and Honeysuckle nearby, so that the bees using the bricks have a local food source.



Bat access roof tiles

- ✓ Temperature is a major factor influencing successful uptake of artificial roost by bats. Eco-habitats should be located where they will receive the maximum amount of sunlight. In the northern hemisphere this will be the southerly aspects/ orientation (south, south-west and south-east). The preferable positioning is 5 to 7 metres above ground. Avoid placement above windows, doors and wall climbing plants, thereby reducing
- ✓ The likelihood of predation by cats. A position near the eaves or gable apex of the property is preferable.
- ✓ It is helpful to consider whether there is nearby vegetation such as hedges and treelines. This is because some bat species use these features for navigation between their roosting site and feeding ground and to avoid flying in open and exposed areas.
- ✓ Bats and their roosts are legally protected from disturbance and damage. For this reason, only a licenced bat worker should closely examine the habitat to check for bat usage. However, anyone can check for signs of bat use. This includes the presence of bat droppings on the plinth and surrounding walls and the out flight of bats at dusk.

Your questions answered

Do Eco-habitats have a value assigned when considering Biodiversity Net Gain?

Although there is currently no quantitative value assigned to Eco-habitats, they can still be included within a project's Biodiversity Net Gain report.

Guidance within the new British Standard on biodiversity net gain 'BS8683:2021 – Process for designing and implementing Biodiversity Net Gain – Specification, states;

- ✓ “Biodiversity enhancement measures that supplement the projects Biodiversity Net Gain Targets and are outside the scope of a metric, should be described and where possible quantified. For example, installing swift nesting boxes within a housing development, installing bat boxes with associated bat friendly lighting”.

Are Eco-habitats suitable for heritage properties?

Yes, wildlife habitats such as bat boxes and bird boxes come in a range of traditional brick types but can be made bespoke to suit individual requirements.

How do I know which products to use for each project?

Speak to your ecologist or contact Wienerberger's specialist team, which includes experienced ecologists who are well placed to advise on the best solutions for individual needs.

What are the maintenance requirements of the bird boxes?

The RSPB (Royal Society for the Protection of Birds) state that our bird boxes do not need to be cleaned out. If birds want to live there, they will clean the boxes out themselves and/or reorganise their living space, as they would do in a natural nest. We have seen this with tree sparrows in some of our boxes where they have cleaned out a previous environment and brought in their own nesting material.

Do nesting birds present a risk to building fabric?

No, they do not. The bird boxes do not affect the rest of the building. The boxes are contained units and the only way wildlife can get in and out of them is from the outer skin of the wall (the single-entry point). This also applies to our solitary bee bricks which has a 75mm deep hole preventing access to the building's cavity. This helps reduce predation of the eggs and larvae.

What to do if you already have bats onsite?

Spotting bats on your site is a good indicator of a healthy ecosystem but remember that it is a legal offence to deliberately disturb, handle or kill bats. For more advice about the protection of bats please contact the Wienerberger Habitat team
<https://www.wienerberger.co.uk/about-us/contact.html>



Eco-habitats in practice



Case study

Flagship approach to swift provision

If you are looking for an example of the built environment providing a home for wildlife, then a former hospital site in Brighton is a great place to start.

This project first started when a £2m refurbishment works took place at the site and nurse Heather Ball first spotted the swifts. “BBC Springwatch inspired me to keep a look out for the swifts,” said Swift Conservation Group (SCG) volunteer and member Heather. “If they hadn’t mentioned them, I wouldn’t have known. But after watching that programme, I heard the swifts’ calls and realised they were nesting in the building.”

It was later discovered that the colony, the second largest in the south of England, had resided at the site for some time, when local residents were able to confirm that the swifts have been active in the area for over half a century. The swifts were using old and decaying ventilator bricks and other gaps in walls as nesting holes, but any repairs made to the holes would have rendered them unusable for the swifts, so Heather realised action was required in order to provide them with a nesting site.

In order to help, Heather enlisted the assistance of her fellow volunteer, Chris Lowe, who runs the SCG, and the site’s owners to see what solution could be found.

The solution came in the form of Wienerberger and Ecosurv’s Habitat Swift Boxes which were chosen to be installed ahead of ventilator bricks during the refurbishment. The boxes were retrofitted into the building, matching the existing brickwork as well as also conforming to British brick standards, meaning the boxes could seamlessly fit into the design of the building.

Several years after the successful installation, Brighton & Hove City Council announced that all new developments over five metres tall in the city now have to include habitats within their construction to house swifts.

The project is now used as a flagship example of swift provision. Local RSPB Conservation Projects Officer, Richard Black, says: “We wish that other building projects would take account of the needs of nesting birds like this. Simple measures such as using swift-friendly airbricks and putting up integral nest boxes can make all the difference to swift numbers.”



Wienerberger solutions





Wienerberger has partnered with Habibat, specialist ecological consultants, to provide the most comprehensive range of Eco-habitats available on the market under the brand name 'Wienerberger Habibat'.

Wienerberger Habibat integrated wildlife boxes provide durable and discrete habitats for British birds, bats, bees and bugs, providing supplementary biodiversity measures for projects and complementing eco-friendly house designs.

All Wienerberger Habibat boxes are produced in the UK to standard brick sizing for ease of installation to match seamlessly into the fabric of the building, but can also be made to order for specific project requirements. The boxes are made in the same masonry as the building, which means they can expand and retract with the building to ensure they are more durable and long lasting than some market equivalents.

Wienerberger Habibat wildlife boxes can be faced in any brick type, regardless of manufacturer, stone finish or suitable for render, this offers plenty of installation options.



ECO-HABITATS


Wienerberger

Wienerberger bird and bat boxes provide durable and discrete habitats for British wildlife, increasing the biodiversity value of your project. We have partnered with Habibat, specialist ecological consultants, to provide the most comprehensive range of eco-habitats available on the market. All produced in the UK to standard brick sizing for ease of installation.



OUR CORE RANGE INCLUDES:

- The Habibat™ Bat Box
- The Swift Box
- The Starling Box
- The Sparrow Box
- Nest and roost boxes
- Roofing eco habitats



On top of our core range of brick eco-habitat boxes, we produce bird boxes for robins, wrens and redstarts and can also work with you to design and manufacture bespoke eco-habitat boxes, providing a choice of formats to suit individual requirements.

These eco-habitats can be created with any of our brick ranges, allowing the option of blending in with the existing brickwork, or using a contrasting colour to encourage wildlife habitation.

The range supports our commitment to improving the wellbeing of communities and promoting biodiversity beyond our own operations - considerations that set us apart in our industry.

In addition to the brick habitats, we also offer a range of roofing eco habitats to suit your project.

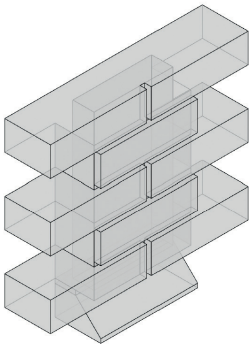
For more information on our range of eco-habitats or to discuss your requirements, please email ecohabitats@wienerberger.co.uk



BAT BOXES

The Habibat range of bat boxes are solid boxes made of insulating concrete that provide an internal roost space, ready to be integrated into the fabric of a building as it is built or renovated. Suitable for most species commonly found in the UK, the single chambered unit features an integrated V system to increase the surface for bats to roost against, whilst allowing freedom of movement.

THERE ARE VARIOUS SIZES TO CHOOSE FROM:



HABIBAT PREMIUM BAT BOX

- **Dimensions:** 440mm wide x 440mm high x 102mm deep
- **Material:** Concrete plus facing brick

With its stretcher bond facing detail, the Premium Bat box can be discreetly integrated into your design. Faced with a Wienerberger brick of your choice to ensure an aesthetically pleasing finish.

HABIBAT BAT BOX

- **Dimensions:** 215mm wide x 440mm high x 102mm deep
- **Material:** Concrete plus brick facing

The Habibat Bat Box has the same internal configuration as the Habibat Premium bat box, the only difference is that this version is finished with a stack bond facing brick detail.

ALSO AVAILABLE IN SMALLER FORMATS:



HABIBAT FOUR COURSE BAT BOX

- **Dimensions:** 215mm wide x 290mm high x 102mm depth

If required this product can also be supplied with an open or closed top (for stacking)



HABIBAT THREE COURSE BAT BOX

- **Dimensions:** 215mm wide, 215mm high x 102mm depth

To accommodate bats during the breeding season, we also produce the Habibat Maternity Bat Box which is more specific to their needs during this time. It features one larger access point and enhancements to the inner workings for ease of movement.



HABIBAT MATERNITY BAT BOX

- **Dimensions:** 215mm wide x 440mm high x 102mm depth

The Habibat Maternity Roost Box range, is a variation of our existing integrated Bat Box range, featuring significant alterations that aim to provide a stable environment for bats and their off spring. Aesthetically, these products appear no different than the current products, however they feature one access point (instead of two), and enhancements to the inner workings in order to provide comfortable roost space for the species, during the breeding season.

BAT ACCESS TILES:



Bat access tiles are specifically designed to provide the right kind of space to protect bats from the elements in their new habitat. This is done by offering a simple way to give bats access through small gaps whilst preventing rainwater ingress to your building. Modified access roof tiles are also available as a more aesthetically pleasing and subtle option.

We can advise on the amount of access and/or raised tiles to install, as too many openings will alter the temperature of the space, whilst too few may trap bats inside.

WHERE TO INSTALL HABIBAT BAT BOXES

Correct placement is fundamental to the successful uptake of use by the bats.



Temperature is known to be the major factor influencing successful uptake of artificial roost by bats. In general, bats seek warm spaces to help them with rearing young. For this reason, Habibat boxes should be located where they will receive the maximum amount of sunlight. In the northern hemisphere this will be the southerly aspects/orientation (south, south-west and south-east).



The preferable position is 5 to 7 metres above ground. Avoid placement above windows, doors and wall climbing plants, thereby reducing the likelihood of predation by cats. A position near the eaves or gable apex of the property is preferable.



To make Habibat a potential roost for a wider range of bat species, it is helpful to consider whether there is nearby vegetation features such as hedges and treelines. This is because some bat species use these features for navigation between their roosting site and feeding ground and to avoid flying in open and exposed areas.



Bats and their roosts are legally protected from disturbance and damage. For this reason only a licenced bat worker should closely examine the Habibat to check for bat usage. However, anyone can check for signs of bat use. This includes the presence of bat droppings on the plinth and surrounding walls and the outflight of bats at dusk.



BIRD BOXES

Wienerberger bird boxes are designed to seamlessly integrate into the façade of the building and fitted during the build stage of a new build project or fitted retrospectively to existing buildings. They can be an attractive feature for your building as well as providing the best possible artificial accommodation for a variety of different birds.

Constructed using insulating concrete block providing an internal roost space, they feature access holes of different sizes depending on the type of bird the bird box is for. The façade of the bird boxes can be clad in any Wienerberger brick from our extensive brick library of over 400 different brick types. We have a number of standard bird box designs and can also offer bespoke bird boxes to order.

SWIFTS:



HABIBAT PREMIUM SWIFT BOX

- **Dimensions:** 552mm wide x 140mm high x 200mm deep



HABIBAT SWIFT BOX

- **Dimensions:** 328mm wide x 140mm high x 200mm deep

SPARROWS:



HABIBAT PREMIUM SPARROW NEST BOX

- **Dimensions:** 440mm wide x 215mm high x 150mm deep



HABIBAT SPARROW NEST BOX

- **Dimensions:** 215mm wide x 215mm high x 150mm deep



HABIBAT TERRACED SPARROW BOX

- **Dimensions:** 665mm wide x 215mm high x 150mm deep

STARLINGS:



HABIBAT PREMIUM STARLING NEST BOX

- **Dimensions:** 440mm wide x 215mm high x 150mm deep



HABIBAT STARLING NEST BOX

- **Dimensions:** 215mm wide x 215mm high x 150mm deep



Let's Build Beyond: Wienerberger's sustainability strategy

This is a huge challenge, but for our business to be sustainable, we need to create enduring value – for us and for those around us. As well as providing products and services that respond to the global challenges of climate change, biodiversity loss and resource scarcity in the built environment, Wienerberger must become a net-zero emission, nature-positive business.

From ideas to completion and beyond, we commit to supporting architects, designers, developers and merchants to create smarter, better-performing buildings and spaces that reduce our impact on the planet. We know the solutions need to be affordable and convenient to use. Our sustainability strategy looks ahead to 2030 and we have already set workstreams in motion to help us to reach our goals. We urgently undertake these tasks with a sense of responsibility and commitment to tackle the crises of climate change, biodiversity loss and resource scarcity by building beyond the known.

Our guiding principles include:

- ✓ Safeguarding our planet: Tackling the issues of climate change, biodiversity and resource scarcity head-on
- ✓ Innovating for the future we want: Developing new products and services that reduce our impact on the planet
- ✓ Moving forward together: Transitioning to a net-zero, nature positive, equitable society together
- ✓ There is a great deal to do if we are to build beyond the known and a successful transition will take time. That is why we have developed a roadmap with milestones along the way to our ambitions for 2030. You can review our Sustainability Strategy Paper at www.wienerberger.co.uk



How are *we* going to get there?

We have established workstreams to begin building beyond the known, because there is a great deal to do and a successful transition will take time. We have developed a roadmap with milestones along the way to our ambitions for 2030.

2021

Decarbonisation

Confirmed our baseline for Scope 1 & 2 GHG emissions

Biodiversity promotion

Publish our UK biodiversity strategy

Resource conservation

Continue phased reduction in plastic packaging, target 30% less by 2023 compared to 2019 levels

Product & service innovations

Founded "Project Tomorrow" our low-carbon product & service innovation workstream

Product & service innovations

Enhanced the Category Marketing team to focus on innovation and market opportunities

Our people

Established an Apprenticeship Academy

Our people

Publish our Equality Diversity & Inclusion policy

Our people

Continued promotion of our Employee Assistance Programme to support employees' physical and mental health

2022

Decarbonisation

Set our baseline for Scope 3 GHG emissions

Resource conservation

Set our baseline for natural resource consumption

Manufacturing processes

Establish datasets for lifecycle assessment

Our people

Publish action plans to increase community representation

Our communities

Publish our Social Value Statement

2023

Decarbonisation

15% reduction in CO₂ emissions (tonnes CO₂e per m² of product) from a 2020 baseline, across Wienerberger Building Solutions

Resource conservation

Revise our natural resource management strategy, with new targets for water conservation and diverting waste from landfill and incineration

Biodiversity promotion

Biodiversity improvement programme in place at all sites

Circular initiatives

100% of new products will be designed in a way that they are reusable or recyclable

Our people

> 30% females in professional services across Wienerberger Building Solutions
>15% females in Senior Leadership Team at Wienerberger Limited

Our people

Increase training hours by 10% per employee across Wienerberger Building Solutions

Our partners

Facilitate CO₂ emissions reductions, via contracting and engagement with key suppliers

Our communities

Quantify our Social Value contribution and set goals for 2030

2025

Decarbonisation

First net-zero concrete tile factory (Scope 1 & 2)

Decarbonisation

Add fully electric cars to company car fleet

Decarbonisation

Complete transition to electric forklift trucks

Circular initiatives

Publish customer deconstruction & reuse guidance for each product category

Our people

Undertake ethnicity pay gap reporting

2027

Decarbonisation

Second net-zero concrete tile factory (Scope 1 & 2)

Biodiversity promotion

Demonstrate biodiversity net gain on all UK factory and quarry sites

Circular initiatives

Circular economy solutions established for plastic and wood packaging materials

Our people

40% female representation in professional services
15% female representation within operational roles

Our ambitions for 2030

Decarbonisation

We will have set a Science Based Target and established a net-zero (Scope 1 & 2) ceramic production line as a key milestone towards achieving net-zero emissions before 2050.

Resource conservation

We will use lifecycle assessments to demonstrate we have reduced our demand for natural resources.

Biodiversity promotion

We will use the Biodiversity Net Gain metric to demonstrate increased biodiversity across our land assets.

Manufacturing processes

Our manufacturing processes will assist Wienerberger's transition to a net-zero emission, nature-positive company.

Circular initiatives

We will have integrated circular economy principles into our business model by designing out waste across the whole product lifecycle.

Product & service innovations

Our products and services will improve people's quality of life and promote efficient use of energy and water in the built environment.

Our people

We will be able to demonstrate high levels of mental and physical wellbeing amongst employees, evidenced by our H&S reports and biannual employee surveys.

Our workforce and leaders will be representative of our local communities.

Our partners

We will have curated a network of trusted partners to tackle the global crises of climate change, biodiversity loss and resource scarcity.

Our communities

We will be able to demonstrate that Wienerberger adds value for communities through our Social Value Statement.



Wienerberger Ltd
Wienerberger House
Brooks Drive
Cheadle Royal Business Park
Cheadle, Cheshire
SK8 3SA

T: 0161 491 8200
wbukmarketing@wienerberger.com
[@wienerbergeruk](https://www.wienerberger.co.uk)
www.wienerberger.co.uk

