

Net Zero Sustainability Services

We approach sustainability holistically, drawing on the skills and expertise of our engineers and consultants to develop bespoke solutions to tackle the climate emergency.

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Harnessing our collective passion and skills to achieve a common goal

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02 We are committed

Waterman is committed to delivering a Net Zero built environment. Under our commitment to climate action and leading the transition to a Net Zero economy, We have pledged to reduce our carbon emissions and reach Net Zero in line with the requirements for keeping global temperature rise under 1.5°C. We are proud signatories of the Structural Engineers Declare, Building Services Engineers Declare and Civil Engineers Declare. These global petitions unite all strands of the engineering profession as both a public declaration of our planet's environmental crisis and a commitment to take positive action in response to climate breakdown and biodiversity collapse.

We work together to futureproof your assets and help secure a brighter future for our planet.

We guide you on your route to Net Zero

As your sustainability partner we will support you throughout your journey towards net zero with our expertise, innovation and multidisciplinary approach.

Sustainability cannot be an isolated service; it requires collaboration between professionals from all aspects of the built environment through the various life cycle stages of the development. We understand the complexities of these interwoven links, which allows us to unlock your project's real potential. Having inhouse knowledge of all key engineering disciplines, we are able to enhance and influence the sustainability solutions through optimised engineering design. 03

Your expert team



Paul O'Connell Managing Director



Niall Coughlan Director



Richard Nelson Associate



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Mo Kiani Associate Director Energy



Hiba Talmoust Graduate Sustainability Consultant



Sam Holmes Senior Sustainability Consultant (BREEAM)



Shaun Carpenter

Senior Sustainability

Consultant

Anastasia Stella Associate Sustainability Consultant



Sophie Murray Associate Sustainability Consultant



Dave Allen Technical Director for Due Diligence, Responsible Investment and Climate Resilience

Core services



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Overarching Sustainability Services

We are dedicated to unlocking the sustainability potential of each project.



Our team of consultants is highly experienced in providing sustainability support to clients. Our cross-sector major master planning to individual

expertise spans all scales of project, from buildings. We offer overarching Sustainability Services that focus on the following core themes of energy, circular economy, wellbeing, heritage, ethical supply chains, low carbon transport, natural capital and water resources.

Our sustainability experts fully embed themselves within the design team, providing clear guidance from the outset, covering all stages from feasibility through to detailed design, during construction and on into the operational phases.

We develop sustainability strategies and frameworks for projects during the feasibility stages. We help our clients to set performance targets and requirements for the core themes, and ensure that these aspects are fully considered, integrated and monitored through to project completion.



With the increasing demand for more sustainable buildings, we understand the need to communicate a building's environmental performance through recognised assessments and frameworks such as BREEAM. WELL and NABERS. Our team of qualified assessors work collaboratively with design teams to help ensure a smooth pathway towards certification



chain

Circular

economy

Well-being



07

Heritage

Ethical supply low carbon transport

Natural capital

Water resources







Our in-house team of consultants support projects and clients across a range of sustainability specialisms, helping maximise each development's sustainability credentials.

Net Zero Services

Delivering design solutions that respond to the climate emergency

We are committed to the design and delivery of Net Zero Buildings. Net Zero buildings bring benefits that go beyond simply responding to climate change; they deliver lower energy costs, improved energy security and enhanced user health and wellbeing.

We approach Net Zero holistically, focusing on four key areas: carbon performance, energy performance, circular economy performance and waste management. We link our Net Zero approach with overarching sustainability assessments and Green Building Certificates.

Our expertise helps you define your route to Net Zero, developing a robust design brief with a clear overview on the requirements, responsibilities and targets for each discipline and for all the identified Net Zero metrics. We formulate cohesive strategies to achieve Net Zero designs in accordance with a project's aspirations and unique requirements. We provide

Creating innovative, low carbon design solutions that are underpinned by whole-life carbon and circular economy principles to deliver truly sustainable developments. services throughout the whole life cycle of the building, delivering all the required studies and advice across all aspects of a development.

Our in-house team of sustainability specialists comprises experts in the fields of Whole Life Carbon and Circular Economy. We are experienced in guiding and supporting design teams from project inception right through to project completion, minimising the overall environmental impact of the development over its entire lifetime and maximising material value within the building.

Our multidisciplinary, collaborative approach means we ensure carbon and circularity are considered alongside architectural, MEP, structural and operational design parameters throughout the design process, helping to achieve optimal outcomes. Carbon reduction at the heart of our designs

Whole-Life Carbon and Circular economy experts

Experts in embodied carbon assessment

Cross discipline carbon advisory capability

NABERS and Energy Analysis

Well and BREEAM advisory service

Climate Resilience and future proofing advice



Material Passporting

We are pioneering the implementation of Material Passports in the UK built environment.

Material Passports are an innovative solution that unlocks materials' reuse potential. These are electronic and interoperable data sets designed to record and maintain information about the materials' performance and properties. This includes information about geometry of the elements, architectural, structural, and physical properties, their location in the building, physical stamps, hazardous constituents and circularity attributes.

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We have developed an efficient methodology that allows the creation of Materials Passports based on the as-built BIM models. Additionally, we have provided technical advice on the development of an innovative online platform that allows the creation, viewing and maintenance of Materials Passports at building, development and city level.

We can help you to create and maintain Materials Passports for either existing or new buildings. The Materials Passports will be saved in a database for the building and will be linked with Operation and Maintenance and FM systems.





Material stock database



Materials

Future release Redevelope of Materials Project



Overview of available resources



Material stock database

Design based on the available resources



Design team

Understanding existing buildings and their material stock



Physical tag on the material



Scan physical tag





Material stock database



Environmental, Social and Governance (ESG) Consultancy

We help organisations build a strong approach to sustainability.

12 We support you in making sound business decisions and identifying effective and pragmatic ongoing actions to help position their businesses appropriately. This can be either explicit in the market-facing sustainability positioning of the business or, more often, implicit in operations to manage risk and protect reputation.

As part of our ESG advisory service, we carry out a full sustainability review of the business which draws out key ESG issues which are most important to your business, customers and other stakeholders.

Our reviews cover a wide range of topics including corporate decision-making, policies and processes, staff welfare and supply chain management, customer and service management. We work in partnership with our clients to identify and target areas for potential performance improvement in either incremental gain or, on occasions, in a step-change manner.





Our expertise and experience spans the implementation of whole life carbon, circular economy and energy analysis. We are perfectly positioned to help project teams deliver Net-Zero buildings, driving positive change and delivering truly sustainable developments as part of the design, construction and operation phases. **Our Sustainability Goals**

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Public commitment to leading effective action on climate change – We have signed a commitment with the Science Based Targets Initiative (SBTi) to reduce our carbon emissions and reach Net Zero.

Reducing embodied and operational carbon through innovation, intelligent engineering, design and specification.

Targeting net zero carbon in construction and operation.

Integration of circular economy principles by designingout waste and pollution, keeping products and materials in use and regenerating natural systems.

Flexible, adaptable and durable buildings designed for longevity and to service future needs and technology.

We are rethinking the way we build. We are committed to the design and delivery of Net Zero Buildings.



Case Study - Edenica

Target Accreditations

Platinum Enabled' 'Outstanding' EPC A-Rating







Our sustainability experts are delivering exemplary projects across the UK and Ireland.

Edenica

Our latest scheme sees our team providing sustainability, energy, ecology, structures, building services and WELL assessment support for BauMont Real Estate and YardNine's stunning 94,000 sq ft commercial office development, Edenica. Situated in the heart of London's Holborn, this exceptional project will set a significant sustainability precedent for UK commercial buildings, harnessing the latest design techniques to optimise operational energy efficiency and slash embodied carbon, whilst also offering a best-in-class user experience.



'Platinum'

Pathway to Net Zero







Building Summary

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1. Mixed mode ventilation

Use of natural ventilation in combination with underfloor air distribution system.

2. Blue roof & water recycling

Rainwater capture through the blue roof and greywater.

3. Roof terraces

7,652 sq ft of above ground floor terraces

4. Solar shading

Reduced solar gains through high performance glazing and solar fins.

5. 100% electric building

Air source heat pumps for heating, cooling and hot water generation.

6. Underfloor heating

Underfloor heating within shower and changing areas.

7. Communal green space

Immediate access to 5,600 sq ft at ground floor (Edenica Gardens and St Dunstan's Gardens).

8. Best in class cycle facilities

Located on ground and mezzanine levels and visible from street level.

9. Photovoltaics

Discreet PV Arrays provided Networked Backbone on plant screen.

10. Flexible floorspace

Arrangement of steel beams and high floor to ceiling heights allowing for highly adaptable space.

11. Underfloor air system

Provides heating and cooling whilst delivering enhanced 3.4m ceiling heights.

12. Passive cooling strategy

Exposed concrete soffits reducing reliance on air conditionina.

13. Low carbon construction Off-site production using

recycled, low carbon material.

14. Converged network

within the building to connect all building systems. SMART building expansion.

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Low Carbon Construction

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Use of prefabricated elements to reduce embodied carbon Embodied carbon target aligned with LETI benchmarks

Meeting the UKGBC requirements for Net Zero in Construction

Protecting the Planet

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100% electric building

Expected operational energy consumption lower than UKGBC 2030 target

Rain water capture through blue roof and smart tank attenuation combined with grey water harvesting to significantly reduce water consumption.

Best in class cycle facilities

Designed to be Net Zero in Operation

Intelligent Design

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'Mixed Mode' optimising natural ventilation use to reduce reliance on air conditioning

'Night Purge' strategy cools concrete soffits to absorb heat during the day – reducing peak cooling loads

Underfloor heating and cooling solution to reduce whole-life carbon

'Fabric First' strategy to reduce energy use with high performance glazing and solar shading fins to control solar gain

> Minimum 3.4m floor to ceiling heights allowing for optimal volume, improving Wellness

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Circular Economy

Material Passporting

Edenica is a pioneering scheme which is the first project in the City of London to use the building as a material bank, enabling future re-use of materials.



Structural Intelligence

High percentage of

cement replacement in the

structure.

Buildings with new and reused materials

Recycled Material

High recycled content

of structural steel saving

more than 238 tonnes CO2.

That's the equivalent of

driving 600,000 miles in an

average passenger vehicle.

Materials All with stor physical stamps ma

- All material data stored in a digital os material 'bank'
- Material can be dismantled or recovered for future developments

Lean Design Principles

Use of an underfloor air system to reduce the need for a significant amount of ductwork, allowing for clear ceilings. Wholelife carbon saving through minimising components that need to be maintained, repaired and altered in fit outs. Case Study - Edenica



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Contact Us

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You can find further details of all our office locations on our website.

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