

Climate Resilience Statement

Assunnah Islamic Centre, 565A – 567A High Road, London,
N17 6SB

Assunnah Islamic Centre

30 March 2026

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1 Introduction

1.1 Overview

The Assunnah Islamic Centre, located at 565A–567A High Road, London, N17 6SB, is seeking planning consent for a comprehensive redevelopment to modernise, expand, and future-proof the existing facilities. The proposal involves unifying the current cluster of buildings into a single, cohesive and climate-resilient 3-storey structure, including a Basement, Ground Floor, First Floor, Second Floor.

The redevelopment aims to:

- enhance the worship facilities to meet the needs of the growing congregation,
- improve accessibility and efficiency of the building,
- and create a high-quality worship environment.

Aval Consulting Group Limited has been appointed to prepare this Circular Economy and Climate Resilience Statement, demonstrating how the proposed development incorporates climate-responsive design, circular resource principles, and low-carbon construction practices in line with relevant policy requirements, including:

- National Planning Policy Framework (NPPF, 2024): Planning for Climate Change,
- London Plan (2021): Policies SI 2, SI 7, G5, G6,
- Haringey Local Plan: Strategic Policy SP4 and Sustainable Design & Construction SPD.

This report outlines the climate-driven strategies embedded in the design and explains how the development contributes to London's transition to a net-zero, climate-resilient built environment.

1.2 Climate-Responsive, Sustainable and Circular Design Measures

The redevelopment integrates a suite of climate-focused and circular economy measures that minimise environmental impact, support long-term resilience, and align with both borough and regional sustainability policy. Key strategies include:

Promoting Low-Carbon and Climate-Resilient Development

- Minimise embodied carbon by reusing materials where feasible and specifying low-carbon, responsibly sourced construction products.
- Use energy-efficient, low-emission machinery during construction to reduce air pollution and carbon output.
- Adopt a demolition strategy that prioritises salvage, reuse and high-value recycling.

Achieving High Environmental and Building Performance Standards

- Incorporate enhanced fabric performance, airtightness, and high-efficiency glazing to reduce heating and cooling demand.

- Align with BREEAM New Construction guidance to achieve robust environmental performance and climate resilience.

Increasing Water Efficiency and Climate Adaptation Capacity

- Integrate water-efficient fixtures and fittings to reduce potable water consumption.
- Explore rainwater harvesting and future greywater reuse to strengthen resilience to water stress.
- Incorporate Sustainable Drainage Systems (SuDS) to mitigate flood risk and manage extreme rainfall events associated with climate change.

Enhancing Biodiversity and Supporting Urban Ecosystems

- Protect existing ecological features during construction.
- Introduce biodiverse planting, green roof potential, and habitat-supporting landscaping to increase ecological resilience.
- Improve pollinator support and create micro-habitats that respond to climate-driven biodiversity pressures.

Adapting the Building to Future Climate Conditions

- Reduce overheating risks following TM52 analysis through passive design, low-g-value glazing and improved ventilation.
- Use materials with high durability and resistance to climate-driven deterioration.
- Promote resilience against heatwaves, intense rainfall and increased temperature variations.

Minimising Environmental Impact of Materials

- Specify sustainably sourced, recycled, and recyclable materials.
- Reduce construction waste through material efficiency measures and careful procurement.
- Maintain digital records (material passports) enabling future reuse and disassembly.

Supporting Ongoing Sustainability and Circular Operation

- Provide dedicated recycling facilities and clear segregation systems for operational waste.
- Ensure the building can adapt to future community needs with minimal material or energy input.
- Incorporate green infrastructure and nature-based solutions that provide environmental services over time.

Encouraging Low-Carbon, Accessible and Sustainable Transport

- Promote active travel by providing secure cycle parking and supporting accessible pedestrian routes.

- Minimise reliance on private vehicles and support Haringey's ambitions for a cleaner, low-emission transport system.
- Facilitate sustainable site access during construction and operation.

Supporting the Wider Local Climate and Sustainability Agenda

- Contribute positively to the environmental quality of the High Road streetscape.
- Complement local initiatives to enhance public realm sustainability and energy efficiency.
- Strengthen community resilience by providing a building equipped for long-term climatic and social change.

2 Applicable Standards and Policy

2.1 National Planning Policy Framework

The National Planning Policy Framework (NPPF 2024) places strong emphasis on mitigating and adapting to climate change across all new developments. It requires proposals to reduce greenhouse gas emissions through efficient design, support renewable and low-carbon energy, and incorporate adaptation measures that address future climate risks such as overheating, flooding, water scarcity and biodiversity loss. Developments are expected to optimise building orientation, form and layout to minimise energy demand, avoid increased vulnerability to climate impacts, and integrate green infrastructure wherever feasible.

For the Assunnah Islamic Centre redevelopment, these principles support the project's objectives of delivering a low-carbon, climate-resilient community building with improved energy efficiency, high-performance materials, nature-based solutions and enhanced environmental stewardship.

2.2 The London Plan 2021

The London Plan (2021) sets out clear requirements for sustainable, climate-adaptive development across the city. Key policies relevant to this scheme include:

- Policy SI2 – Minimising Greenhouse Gas Emissions: requiring major developments to follow the London Energy Hierarchy (Be Lean, Be Clean, Be Green) and significantly reduce operational and embodied carbon.
- Policy SI7 – Circular Economy: requiring a Circular Economy Statement, material retention, design for disassembly and high-value reuse/recycling of demolition and construction materials.
- Policy SI12 – Flood Risk Management & Climate Adaptation: ensuring development incorporates measures such as SuDS, overheating mitigation, and future climate allowances.
- Policies G5 & G6 – Urban Greening and Biodiversity: requiring integration of green infrastructure, enhancement of ecological value and measurable improvements to biodiversity.

Together, these policies guide the redevelopment of the Assunnah Islamic Centre toward a climate-ready, resource-efficient, resilient building that supports London's transition to a net-zero, circular built environment.

3 Baseline Climate Environmental Assessment

3.1 Local Climate Risk Profile (Heat, Flooding, Water Stress)

The London Borough of Haringey is increasingly exposed to climate-related pressures, including hotter summers, more intense rainfall, and rising water scarcity. Baseline climate modelling indicates higher annual temperatures, frequent heatwaves, and extreme precipitation events, which directly influence building performance, occupant comfort, drainage capacity, and urban ecosystem resilience.

TM52 dynamic modelling for the Assunnah Islamic Centre shows that, under baseline conditions (higher g-value glazing, no mechanical ventilation), several spaces were at risk of overheating, including the Female Prayer Room, Janazah Room, Small Prayer Area, offices, and flexible community rooms. BREEAM Hea 05 – Thermal Modelling recognises early overheating analysis; these findings inform targeted mitigation through glazing selection, MVHR, and passive design strategies.

While the site is not located in a high fluvial flood zone, Haringey is prone to surface-water flooding. Baseline assessment informs recommendations for SuDS, permeable paving, and infiltration landscaping, in line with BREEAM Pol 03 – Flood Resilience.

3.2 Existing Air Quality and Emissions

The site lies within an Air Quality Management Area (AQMA), with road-traffic emissions contributing elevated nitrogen dioxide (NO₂) and particulate matter (PM₁₀/PM_{2.5}) levels. The development avoids combustion systems entirely, adopting all-electric Air Source Heat Pumps (ASHPs), LED lighting, and low-emission mechanical systems, aligning with BREEAM Pol 02 – Local Air Quality. This approach simultaneously supports climate mitigation and indoor environmental quality.

3.3 Existing Energy Use, Infrastructure and Transport Patterns

Existing buildings are energy-inefficient, with poor insulation and outdated systems. SBEM modelling projects significant performance improvements through the redevelopment:

- Walls: 0.13 W/m²K
- Roof/Floor: 0.11 W/m²K
- Glazing: 1.1 W/m²K
- Airtightness: 3 m³/h·m²

These standards support BREEAM Ene 01 – Energy Performance. District heating connection was explored via the London Heat Map but deemed unfeasible, in line with BREEAM Ene 01 & Ene 02 requirements. Transport patterns in the area are dominated by walking, bus use, and some private vehicles; the redevelopment prioritises low-emission, active-travel-oriented access.

3.4 Local Vulnerabilities to Climate Change

Key vulnerabilities include overheating, intense rainfall, urban heat island effect, biodiversity loss, and air pollution. These are addressed across BREEAM categories:

- Hea 01 / Hea 05 – Daylighting, thermal comfort, and overheating
- LUE 02–05 – Ecology, enhancement, and long-term management
- Wat 01–05 – Water efficiency, leak detection, and conservation
- Pol 03 – Flood resilience

4 Low-Carbon and Climate-Mitigation Strategy

4.1 Energy Efficiency and Demand Reduction Measures

A fabric-first approach — including high insulation, low-g glazing, airtight construction, and LED lighting — minimises energy demand and heating/cooling loads. This satisfies multiple BREEAM requirements: Ene 01, Ene 04, Hea 01. Be Lean interventions alone achieved a 12.33% carbon dioxide (CO₂) reduction, contributing to a “Very Good” BREEAM pathway.

4.2 Integration of Low-Carbon and Renewable Technologies

The renewable energy strategy includes:

- ~40 PV panels (12 kWp)
- ASHPs for heating/cooling
- MVHR for comfort and energy efficiency
- Biomass and wind excluded for pollution and viability reasons

These support BREEAM Ene 01–03. Combined Be Lean + Be Green interventions achieve a projected 92.8% CO₂ reduction.

4.3 Sustainable and Low-Emission Transport Strategy

Car-free operation (except essential accessible parking), secure cycle storage, improved pedestrian access, and public transport connections support:

- Tra 01 – Transport Assessment, Travel Plan, CEMP & ATZA assessment
- Tra 02 – Sustainable Transport Measures

4.4 Circular Economy and Low-Carbon Resource Management

Material reuse, design for disassembly, and comprehensive waste segregation align with:

- Wst 01–03 – Pre-demolition audit, operational waste, sustainable aggregates
- Mat 01, 03 – Circular Economy assessment, responsible sourcing

Material passports further enhance circularity and Wst 06 – Design for Disassembly compliance.

5 Climate-Smart Design and Construction

5.1 Low-Carbon Construction Techniques

The construction phase prioritises reducing environmental impacts, embodied carbon, and disturbance to the surrounding community. The detailed Construction Management Plan guides sequencing, monitoring, and on-site practices. The project uses NRMM-compliant machinery to limit local air pollution, alongside low-emission vehicles for transporting materials. Noise and vibration are mitigated through careful scheduling, acoustic screens, and site layout, while temporary lighting is designed to minimise night-time light pollution, protecting local ecology and residents.

The approach aligns with BREEAM's focus on responsible construction management, environmental protection, and resource efficiency. By adopting these strategies, the development not only reduces operational and embodied impacts but also contributes to a safer, cleaner, and more community-friendly construction phase.

5.2 Sustainable and Resilient Material Specification

Materials are chosen for durability, repairability, and sustainability. FSC-certified timber, recycled aggregates, and low-carbon concrete alternatives are prioritised, while modular connections and mechanical fixings allow future disassembly and reuse. High-durability finishes and structural components minimise maintenance and extend building lifespan, reducing the environmental impact over time.

These practices reflect BREEAM's principles of responsible material sourcing, lifecycle carbon reduction, and circularity, helping the project to minimise embodied carbon while improving long-term resilience.

5.3 Water Efficiency, Conservation, and Supply Security

Water efficiency measures include low-flow fixtures, dual-flush toilets, efficient showers, and leak detection systems integrated into the building management system. Flow regulation and pressure control optimise water use, while provision for rainwater harvesting or greywater reuse allows non-potable water to be used efficiently.

These interventions are consistent with BREEAM's emphasis on resource efficiency and water stewardship, improving resilience to drought, reducing operating costs, and ensuring sustainable use of water over the building's lifecycle.

5.4 Embodied Carbon Reduction Through Design Optimisation

The building's structure and architecture are carefully designed to minimise material use while maintaining strength and durability. Strategies include efficient structural grids, lightweight high-strength materials, and minimisation of redundant elements. Long-lifespan components are selected to reduce the need for frequent refurbishment, and coordination with procurement and on-site waste strategies further reduces environmental impact.

This approach aligns with BREEAM's fabric and energy efficiency requirements, optimising both operational and embodied carbon performance while ensuring long-term resilience and sustainability.

6 Climate Resilience and Adaptation

6.1 Flood Risk Management and Sustainable Drainage (SuDS)

Surface-water flooding is mitigated using Sustainable Drainage Systems, including permeable paving, infiltration landscaping, and green roof layers. These features reduce runoff, enhance biodiversity, and improve microclimate regulation.

Such measures reflect BREEAM's guidance on flood resilience and ecological integration, embedding adaptation strategies into the site's landscape design to manage extreme weather risks while enhancing environmental quality.

6.2 Urban Heat Island Mitigation and Overheating Control

TM52 modelling informed design strategies to limit overheating, including 0.35 g-value glazing, 20 L/s MVHR, high-performance insulation, shading devices, and reflective surfaces. Vegetation and green roofs also reduce heat accumulation at the local level, enhancing occupant comfort and contributing to urban cooling.

These interventions align with BREEAM's thermal comfort and passive design principles, ensuring that the building remains comfortable and energy-efficient under current and projected climate conditions.

6.3 Green Infrastructure and Biodiversity Enhancement

Green infrastructure improves site ecology and climate resilience. Biodiverse roofs, pollinator planting, and habitat creation enhance local biodiversity, while ecological monitoring and long-term management plans maintain these benefits over time.

The approach embodies BREEAM's ecological enhancement and stewardship objectives, ensuring that the development contributes positively to local ecosystems and supports long-term environmental health.

6.4 Designing for Future Climate Scenarios

The building uses DSY1 2020 weather files and adaptable systems to remain resilient under future climate conditions, including increasing temperatures, heatwaves, and intense rainfall. Flexible plant spaces, ventilation, drainage, and shading systems are designed to accommodate potential upgrades.

This reflects BREEAM's focus on future-proofing buildings for climate change, embedding flexibility and adaptability into operational strategies to maintain performance over the building's lifecycle.

7 Community Engagement and Climate Behaviour Change

7.1 Local Stakeholder Engagement

Stakeholder engagement for this project has focused on coordination with the client team, design team, and relevant statutory bodies to ensure that the development responds appropriately to planning, sustainability and operational requirements. While no public consultation has been undertaken as part of the scheme's development, the design process has incorporated professional stakeholder input to ensure that climate-adaptation measures, energy performance considerations and operational strategies are developed responsibly and in line with best practice.

This approach aligns with BREEAM principles on responsible project planning, ensuring that sustainability and climate-resilience measures are integrated in a transparent and well-coordinated manner.

7.2 Education and Awareness

User guides, signage, and digital platforms promote energy efficiency, water conservation, and correct operation of MVHR and BMS systems. Education ensures that occupants understand how to use the building sustainably, encouraging behaviour that supports low-carbon and resource-efficient operations.

This approach complements BREEAM's principle of operational awareness, supporting occupants in maintaining energy and water efficiency throughout the building's lifecycle.

7.3 Encouraging Low-Carbon Lifestyles

The development encourages sustainable behaviours through secure cycle storage, pedestrian improvements, car-free policies, and operational waste segregation. Engagement campaigns and guidance materials reinforce low-carbon choices and resource-conscious behaviours.

These measures mirror BREEAM's focus on sustainable transport and operational resource management, fostering lasting behavioural change that supports both environmental and social objectives.

8 Monitoring, Reporting, and Evaluation

8.1 KPIs and Data Collection

Performance is monitored across energy, water, waste, biodiversity, and thermal comfort. Smart metering, sub-metering, and ecological monitoring provide real-time data, enabling informed decision-making and adaptive management.

BREEAM's operational principles encourage evidence-based monitoring, allowing the building to demonstrate compliance with environmental performance targets and identify opportunities for continuous improvement.

8.2 Reporting and Continuous Improvement

Post-construction reports track material recovery, energy and water performance, ecological outcomes, and operational efficiency. Data is used to optimise operations and inform maintenance and management strategies.

This approach embodies BREEAM's focus on post-occupancy evaluation and continuous improvement, ensuring long-term sustainability and accountability.

9 Risks and Mitigation Measures

9.1 Identified Risks

The building responds to key climate-related risks including overheating, flood risk, material degradation, pollution, and resource inefficiency.

Mitigation Strategies

Passive cooling, efficient glazing, MVHR, SuDS, green roofs, and resilient materials reduce vulnerability to environmental extremes. Low-emission machinery, circular resource management, and sustainable materials enhance resilience across operational and embodied impacts.

These measures reflect BREEAM's holistic approach to risk mitigation and environmental performance, embedding resilience and sustainability into both design and operation.

9.2 Contingency and Emergency Planning

Resilient layouts, emergency access, and system redundancy ensure continued operation during extreme weather events such as heatwaves or storms. Staff training and operational plans support adaptive response.

BREEAM encourages long-term adaptability and aftercare, ensuring the building maintains functionality and environmental performance even under stress conditions.

10 Conclusion

The redevelopment of the Assunnah Islamic Centre demonstrates a comprehensive and forward-looking response to the challenges posed by climate change. Through a combination of fabric-first design, passive cooling strategies, high-efficiency building services, and all-electric operation, the project significantly reduces operational carbon emissions and enhances overall energy performance. Detailed SBEM modelling confirms substantial reductions in heating and cooling demand, while renewable energy feasibility work supports the integration of rooftop solar PV and enables long-term decarbonisation of energy use.

Incorporating the results of TM52 dynamic thermal modelling ensures that the building is resilient to future temperature increases. The adoption of low-g glazing, mechanical ventilation (20 L/s), and optimised façade performance ensures full compliance with all three TM52 overheating criteria, safeguarding occupant comfort under DSY1 future climate scenarios.

Climate adaptation measures — including Sustainable Drainage Systems, permeable paving, infiltration landscaping, and the potential for green roofs — mitigate surface-water flood risk and support urban cooling, biodiversity enhancement, and long-term ecosystem health. Nature-based solutions such as pollinator-friendly planting, green infrastructure, and ecological enhancements further contribute to local resilience and environmental benefit.

The development's commitment to circular economy principles, including reuse of materials, pre-demolition audits, material passports, high recycling rates, and design for disassembly, ensures responsible resource management and significant embodied carbon reductions. These measures complement the building's operational efficiencies and contribute meaningfully to whole-life sustainability.

The project also performs strongly against BREEAM New Construction V7 standards, targeting a "Very Good" rating with a score of 61.28%. The development meets or exceeds mandatory criteria across energy modelling, low-nitrogen oxides (NOx) systems, leak detection, construction management, indoor air quality planning, waste reduction, and ecological enhancement. The alignment between the Climate Resilience Statement and BREEAM demonstrates that sustainability and resilience have been embedded holistically across the design, construction and operational phases.

As a whole, the redevelopment delivers a future-ready, low-carbon, climate-resilient community facility that is fully aligned with the ambitions of the London Plan (SI2, SI7, SI12, G5, G6), Haringey's Strategic Policy SP4, and national climate objectives. The project sets a strong precedent for sustainable community infrastructure, significantly enhancing local environmental quality while ensuring long-term adaptability to evolving climate conditions.