

Sustainability Statement

Welwyn Equestrian Centre
Pottersheath Road
Codicote, Welwyn
Hertfordshire
AL6 9SZ

Job ref: 26381
August 2026



7 Paynes Park
Hitchin
Hertfordshire
SG5 1EH

01462 420800 | 01799 530097

info@bbr-design.co.uk

www.bbr-design.co.uk



Contents

Contents	1
1. Sustainability Statement	2
1.1. Introduction	2
1.2. Reuse of an Existing Building and Embodied Carbon Reduction	2
1.3. Energy Efficiency and Passive Design	2
1.4. Low-Carbon & Renewable Technologies	3
1.5. Water Efficiency	3
1.6. Sustainable Materials and Construction Practices	3
1.7. Biodiversity Enhancement	3
1.8. Sustainable Transport	3
1.9. Climate Change Adaptation	4
1.10. Conclusion	4

1. Sustainability Statement

1.1. Introduction

This Sustainability Statement accompanies a planning application for the conversion of an existing storage barn into a single residential dwelling within North Hertfordshire. The proposal has been developed in accordance with the North Hertfordshire Local Plan, Policy SP1 (Sustainable Development), Policy D1 (Sustainable Design), and the Council's adopted Sustainability Supplementary Planning Document (SPD), which sets out clear expectations for sustainable development across the district.

The Council has declared both a Climate Emergency (2019) and an Ecological Emergency (2023), committing to ambitious carbon-reduction and biodiversity-enhancement goals. This proposal supports those commitments by reusing existing built fabric, reducing embodied carbon, and incorporating modern low-carbon design principles.

1.2. Reuse of an Existing Building and Embodied Carbon Reduction

The conversion of an existing barn directly aligns with NHDC's emphasis on resource efficiency, zero waste, and minimising embodied carbon, as set out in the SPD.

Key sustainability benefits include:

- Retention of the structural frame and envelope, significantly reducing construction waste.
- Avoidance of demolition and new-build impacts, supporting the Council's district-wide emissions-reduction goals (Net Zero by 2040).
- Conservation of materials and reduced pressure on landfill, in line with SPD "Zero Waste" principles.

1.3. Energy Efficiency and Passive Design

The SPD places strong emphasis on passive design, energy efficiency, and climate-responsive construction.

The proposal incorporates:

- High-performance insulation to meet or exceed Part L requirements.
- Improved air-tightness and thermal bridging reduction.
- High-performance glazing to optimise natural light while reducing heat loss.
- Passive solar design, using the barn's orientation to maximise winter solar gain and minimise summer overheating.
- Natural ventilation strategies to support indoor air quality and reduce reliance on mechanical cooling.

These measures support NHDC's climate-mitigation objectives and adaptation guidance.

1.4. Low-Carbon & Renewable Technologies

In line with SPD guidance on renewable energy developments and the Council's Net Zero ambitions the dwelling will incorporate:

- Smart energy controls to optimise heating and electricity use.
- Provision for electric vehicle (EV) charging, supporting NHDC's transport-emissions reduction goals.

1.5. Water Efficiency

The SPD sets out clear expectations for water efficiency standards. The development will include:

- Low-flow fixtures and dual-flush toilets.
- Water-efficient appliances.
- Rainwater butt for garden irrigation.
- Sustainable drainage measures to reduce runoff and support local water resilience.

1.6. Sustainable Materials and Construction Practices

Aligned with SPD guidance on materials, zero waste, and responsible sourcing, commitments include:

- Use of low-embodied-carbon materials and FSC-certified timber.
- Segregation and recycling of construction waste.
- Preference for local contractors and suppliers to reduce transport emissions.
- Durable materials selected to support long-term climate resilience.

1.7. Biodiversity Enhancement

NHDC's Ecological Emergency declaration and SPD guidance on wildlife, green infrastructure, and biodiversity net gain inform the following measures, enhancements include:

- Native planting within the curtilage to support pollinators.
- Installation of bat and bird boxes where appropriate.
- Sensitive external lighting design to avoid ecological disturbance.
- Enhancement to existing landscape features that support habitat continuity.

1.8. Sustainable Transport

In line with NHDC's sustainability priorities and transport guidance, the proposal includes:

- Secure cycle storage to encourage active travel.
- EV charging provision to support low-emission transport.
- Efficient access arrangements that minimise transport impacts.

1.9. Climate Change Adaptation

The SPD emphasises adaptation to higher temperatures, extreme weather, and long-term climate resilience. The proposal incorporates:

- High-quality insulation and ventilation to manage overheating risk.
- Use of permeable surfaces and SuDS-aligned drainage solutions.
- Durable materials and construction detailing to withstand future climate conditions.

1.10. Conclusion

This barn conversion has been designed to meet and exceed the sustainability expectations set out in the North Hertfordshire Sustainability SPD, the Local Plan, and the Council's climate and ecological commitments. The proposal reuses existing built fabric, reduces embodied and operational carbon, enhances biodiversity, and incorporates modern low-carbon technologies. It represents a responsible, resilient, and environmentally aligned form of rural development within North Hertfordshire.

BBR Design
7 Paynes Park
Hitchin
Hertfordshire
SG5 1EH

01462 420800 | 01799 530097

info@bbr-design.co.uk
www.bbr-design.co.uk

