

Energy and Sustainability Statement

Proposed Residential Development – Salters Close, Werrington, Stoke-on-Trent 5 No. 2–3 Bedroom Dwellings on Former NHS Clinic Site

1.0 Introduction

This Energy and Sustainability Statement has been prepared in support of a planning application for the redevelopment of the former NHS clinic site at Salters Close, Werrington, to provide five new 2–3 bedroom residential dwellings.

The statement sets out how the proposed development will:

- Minimise energy demand and carbon emissions
- Incorporate low and zero carbon technologies
- Promote sustainable construction and operation
- Respond positively to ecological and biodiversity considerations
- Comply with relevant national and local planning policy

The proposals represent a sustainable redevelopment of a previously developed brownfield site within an established residential area.

2.0 Planning Policy Context

The development has been designed to accord with the following policy and guidance:

- National Planning Policy Framework (NPPF)
 - Paragraphs 152–159: transition to a low carbon future
 - Support for energy efficiency, renewable energy and climate resilience
- Building Regulations Part L (2021) and Future Homes Standard trajectory
- UK Net Zero Strategy (2050 target)
- Staffordshire Moorlands Local Plan policies relating to:
 - Climate change mitigation
 - Sustainable design
 - Biodiversity Net Gain
 - Green Infrastructure
- Environment Act 2021 – mandatory Biodiversity Net Gain

The proposals respond positively to all of the above.

3.0 Site and Development Overview

The site comprises the former Werrington NHS clinic and associated hardstanding, which will be demolished and replaced with:

- 5 no. 2–3 bedroom houses
- Associated gardens, access, parking and landscaping

The site is located in a sustainable settlement with good access to services and public transport, supporting reduced reliance on private car use.

The accompanying Ecological Appraisal confirms the site has limited ecological value, with off-site BNG delivery required, and that development is appropriate subject to mitigation and enhancement.

4.0 Energy Hierarchy Approach

The scheme follows the recognised energy hierarchy:

4.1 Reduce Energy Demand (Fabric First)

The primary strategy is to minimise energy demand through high fabric performance:

Building Fabric

- Highly insulated external walls, roofs and floors exceeding Part L standards
- Airtight construction to reduce heat loss
- High performance double or triple glazing with low U-values
- Reduced thermal bridging through careful detailing

Layout and Orientation

- Dwellings designed to maximise passive solar gain where possible
- Minimise overshadowing and optimise daylighting
- Dual aspect units for natural ventilation

This approach ensures that baseline energy demand is significantly reduced before considering technologies.

4.2 Use Energy Efficient Systems

The dwellings will incorporate:

- Low energy LED lighting throughout
- A-rated appliances encouraged via Home User Guides
- Smart heating controls and zoning
- Mechanical extract ventilation with humidity control (or MVHR if viable)

These measures significantly reduce operational energy use.

4.3 Supply Energy Efficiently & Low Carbon Technologies

The development will incorporate low and zero carbon technologies, including:

Air Source Heat Pumps (ASHP)

- All dwellings to be heated via air source heat pumps
- No on-site fossil fuel combustion
- Compliant with Future Homes Standard direction
- Highly efficient, low carbon heating and hot water

Solar Photovoltaic (PV) Panels

- Roof-mounted solar PV arrays on suitable roof slopes
- Electricity generated used directly within dwellings
- Reduces grid demand and household bills
- Supports EPC A/B ratings

Electric Vehicle Charging

- EV charging points provided for each dwelling or communal provision
- Supports transition to low-emission transport

5.0 Predicted Energy and Carbon Performance

Although full SAP calculations will be submitted at Building Regulations stage, the proposed measures are expected to:

- Achieve CO₂ reductions in excess of 30% over Part L 2013 baseline
- Comply with or exceed Part L 2021
- Be fully aligned with the Future Homes Standard
- Deliver low operational energy costs for residents

This represents a significant improvement compared with the former clinic building.

6.o Sustainable Construction and Materials

The development will adopt responsible construction practices:

- Use of responsibly sourced materials (FSC timber, certified suppliers)
- Preference for low embodied carbon materials where viable
- Waste minimisation and recycling during construction
- Site Waste Management Plan implemented
- Modular or pre-fabricated elements used where possible

7.o Water Efficiency and Drainage

Measures include:

- Low-flow taps, showers and dual flush WCs
- Water efficient appliances
- Rainwater attenuation and sustainable drainage where feasible
- Permeable paving and soft landscaping to reduce surface water runoff

This supports climate resilience and reduces pressure on local drainage networks.

8.o Climate Change Adaptation and Overheating

The design considers future climate conditions:

- Solar shading via building form and window placement
- Limiting excessive south-facing glazing
- Good natural ventilation
- High thermal mass where appropriate
- Avoidance of overheating without reliance on air conditioning

This ensures long-term comfort and resilience.

9.o Biodiversity and Sustainability Integration

The Ecological Appraisal confirms:

- No statutory ecological constraints on site
- Off-site BNG of 10% will be delivered
- Retention and protection of off-site boundary trees
- Wildlife enhancements recommended

The sustainability strategy supports this through:

- Wildlife-friendly landscaping

- Native planting
- Hedgehog access gaps
- Sensitive lighting design
- Bat and bird boxes where appropriate
- Avoidance of invasive species
- Peat-free compost and sustainable planting practices

Together, energy and biodiversity objectives are integrated to deliver holistic sustainability.

10.0 Transport and Accessibility

The site benefits from:

- Proximity to local services
- Good access to walking routes and public transport
- EV charging to reduce emissions
- Secure cycle storage for residents

These measures reduce car dependency and transport emissions.

11.0 Summary and Conclusion

The proposed redevelopment of the former NHS clinic site at Salters Close represents a highly sustainable form of residential development that:

- Reuses brownfield land efficiently
- Delivers low carbon, energy efficient homes
- Incorporates renewable energy and future-proofed heating
- Supports biodiversity enhancement
- Reduces environmental impact
- Complies with national and local planning policy

The scheme demonstrates a clear commitment to sustainable development and climate change mitigation, and is considered entirely appropriate for approval.