



Energy Statement

Land at Greenbooth Road/Edenfield Road,
Norden

Proposed Development for 49 Dwellings

June 2023



This report is designed to evaluate the energy efficiencies of the proposed dwellings against Part L 2022 Building Regulations and relevant policies within the adopted Local Plan for Rochdale.

It will consider:

- Fabric Efficiencies of all elements
- Heating and hot water efficiencies
- Ventilation design
- Thermal Bridging details
- Lighting and appliances
- Air Leakage
- Photovoltaics (PV)

Summary of 2022 Part L requirements:

- CO2 emissions need to reduce by at least 31% compared to 2013 regs.
- Regulations active from June 2022.



Key policies within the Core Strategy relating to energy and proposed residential development are:

- **Policy G1 – tackling and adapting to climate change** – sets out measures for responding to climate change and minimising the increase in CO2 emissions.
- **Policy G2 – energy and new development** – provides an energy hierarchy with the aim of reducing carbon emissions from new buildings.

The Government has announced changes to Part L of the Building Regulations, the purpose of which is to reduce carbon emissions from new buildings. The changes came into effect from June 2022 and the proposed development will be designed in accordance with the latest building regulation requirements.

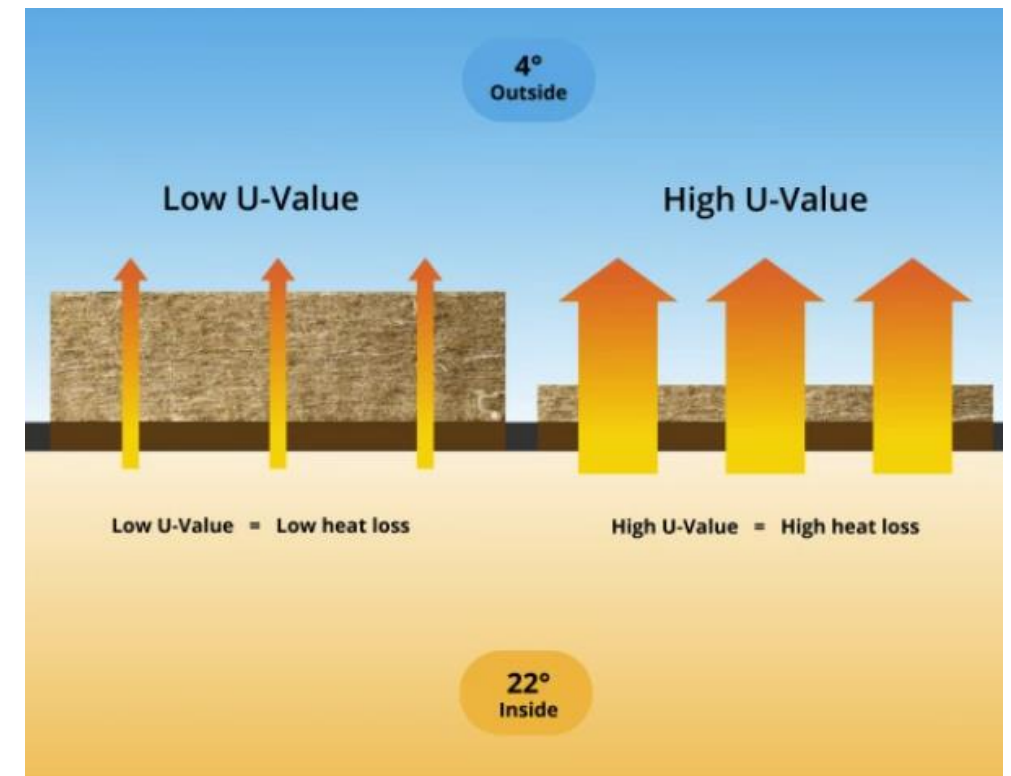
Having regard to the measures set out within this statement, it is considered that the proposed development does not conflict with the aims and objectives of Policy G1 and G2.



- Floor $U = 0.15$
- Wall $U = 0.21$
- Roof $U = 0.08$
- Windows $U = 1.2$
- Front Door $U = 0.55$
- Air leakage = $4\text{m}^2/\text{m}^3\text{hr}$
- Boiler = 93% efficient
- Zone valves
- Weather compensator
- PIV ventilation
- Accredited junction details
- PV
- Shower Heat Recovery System



- Walls are factory insulated to maintain high levels of installation quality and to achieve U values of 0.21.
- Windows use highly efficient double glazing to achieve U values of 1.2.
- Composite external doors achieve U values as little as 0.55.
- Foiled Vapour Control Layers help us to achieve air leakage figures of less than 4 AC. Every plot is tested to prove compliance.
- The thermal junctions of the dwellings are built to a minimum of Accredited Details standard.
- Many junctions have been refined to decrease the Psi value and increase thermal efficiency.



All houses utilise efficient condensing modulating gas boilers.

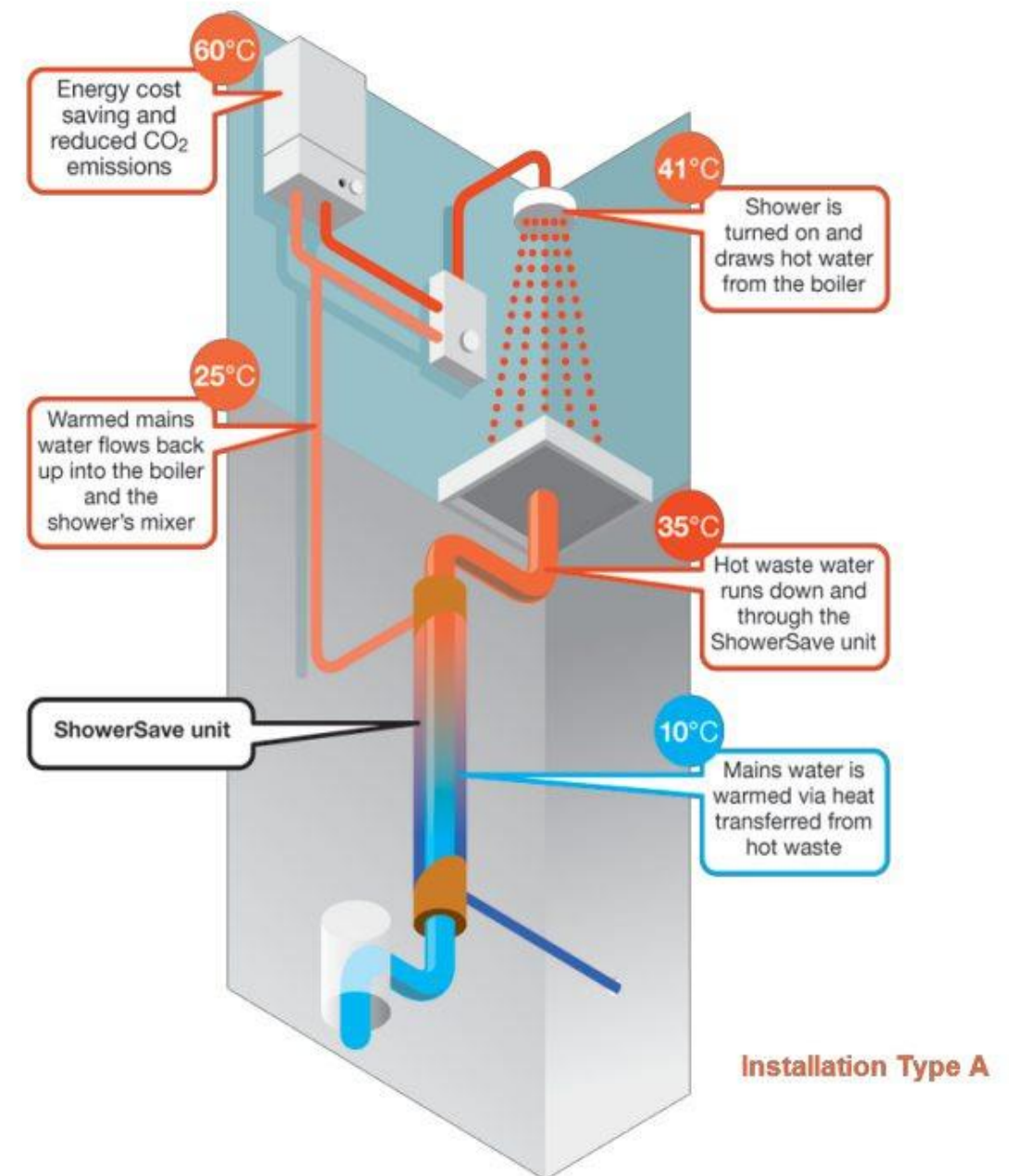
- All house designs use 2 zone heating to maximise efficiencies.
- Boilers are linked to weather compensators to allow the boiler to assess outside conditions, and work to achieve inside requirements.

Radiators and pipe runs designed to accommodate future change to a heat pump for the house owner.

All dwellings use water saving sanitary ware.

- These include aerating taps, aerating showers, and low flush toilets.
- This allows dwellings to improve upon the Building Reg minima of 125 litres of water per person per day.
- This allows a more efficient SAP calculation.

All dwellings to use Shower Wastewater Heat Recovery (SWWHR)



Ventilation, Thermal Bridging, Lighting and Appliances, Air Leakage & PV

Stonebond

Ventilation:

- PIV systems are incorporated within every dwelling.
- PIV systems benefit from the freely warmed air in roof spaces.
- This air is blown into the property and helps to maintain a healthy environment for the occupier.

Thermal Bridging:

- All junctions are thermally designed.
- They meet Accredited Details as a minimum.
- The junctions are further improved where possible to achieve an overall lower ψ value.

Lighting and Appliances:

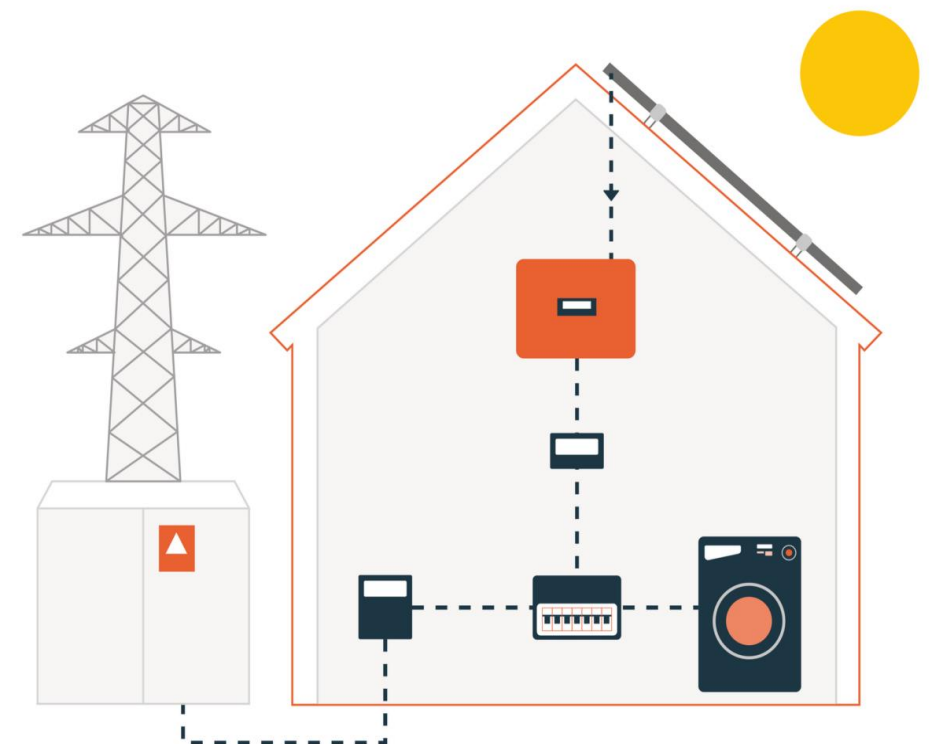
- Energy efficient lighting is used throughout every dwelling, both internal and external.
- Energy efficient appliances (A and A+) are utilised

Air Leakage:

- All houses are designed to a maximum air leakage of $4\text{m}^3/\text{m}^2/\text{hr}$
- All houses will be tested to ensure compliance.

Photovoltaics (PV):

- Roof mounted PV will be installed on every plot.
- These must be on the Southern most practical elevation.
- PV arrays will be approximately 1.2kW which consists of 4 no. 300W panels.





Stonebond 