

CLIMATE DESIGN STATEMENT

Land at 1A Springfield Road, Gillingham ME7 1YJ

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This energy strategy has been provided for the proposed development on land at 1A Springfield Road, Gillingham ME7 1YJ.

The energy strategy has been prepared in line with the Medway Climate Change Action Plan and in accordance with Building Regulations Approved Document Part L 2023 Amendment. The requirements of the Medway Climate Change Action Plan are not specific and therefore the energy hierarchy principles set out in The London Plan has been used as a guide.

It should be noted that the application is currently outline, so the detail and specification of the potential energy strategies that can be adopted will need to be finalised within the reserved matters. This statement sets out the steps and approach that will allow the future construction to be policy compliant.

The Key design issues are summarised as follows

Sustainable design principles

Underlying this aspiration and objective is the reduction in the need / demand for energy. This would be achieved by adopting the following design principles.

- Orientation: making best use of high summer sun angles and low winter sun angles on southern exposures while minimising excessive solar gain on east and specifically west exposures from low year-round sun angles.
- Glazing: sizing, positioning and detailing windows to get the most benefit from the sun while avoiding overheating in summer and heat loss in winter.
- Thermal mass: providing sufficiently exposed thermal mass to store heat from the sun in the winter and act as a heat sink for cooling in the summer. Benefits of thermal mass are often lost through excessive wall, ceiling and floor covering.
- Insulation: specifying high levels of insulation to reduce unwanted heat loss or heat gains through the roof, walls, doors windows and floors.
- Natural ventilation: designing clear and robustly controlled flows through buildings for daytime and night time cooling. Building air-tightness forms a critical component for achieving effective natural ventilation.
- Zoning: providing carefully considered zoning to allow different thermal requirements to be compartmentalised.

Energy and carbon reduction methods

The following principles would be adopted.

- The Building Regulations part L1A will only be used as a minimum requirement and improvements over and above its standards will be actively sought regarding the fabric, heating system, solar gain and natural shading.
- Glazing will be thermally insulated gas filled with solar control glass to reduce overheating of the dwelling.
- The proposed dwelling is to be constructed using traditional methods and materials with the purpose that it can be built using local suppliers and sources.
- All materials are to be sourced responsibly from suppliers who are environmentally accredited (ISO14001, BES6001 or similar).
- All timber used onsite and in construction shall be sourced from accredited suppliers and sources.
- Materials with an Environmental Product Declaration (EPD) shall be chosen.
- Only insulants that have a Global Warming Potential (GWP) of less than 5 will be utilised.
- The area has mains gas and the primary source of heat will be a Class 5 Boiler to BS EN 297:1994. A 98% efficient gas combination boiler the heating system using underfloor heating system will be used. However, if this were to prove to no longer be compliant to current regulations, then an air source heat pump system would be used as an alternative.
- The SAP calculation will show a Dwelling Emission Rate reduction on current Building Regulations
- Kingspan or similar PIR insulation will be used under the floor and it is hoped to take advantage of the supplier's new scheme to collect off cuts in suitable bags for reprocessing and re-use to prevent it being put in skips and sent to landfill.
- All potential cold bridge joints and abutments will be constructed to Accredited Construction Details reducing the long term energy losses from the fabric of the building.
- All internal light fittings will be 100% LED lighting throughout.
- External security and space lighting will have day/night and movement sensors, have time cut off and be of 150W maximum with low energy fittings.
- All white goods / appliances to be installed will be A+ rated as a minimum.

Biodiversity Net Gain

The following principles would be adopted.

- Site currently is entirely garage and yard with zero biodiversity value.
- New planting / landscaping will be incorporated to create biodiverse habitats and achieve net gain in biodiversity.
- Installation of bat boxes and bird boxes within the planting scheme will further add to that value.

Water efficiency and recycling

The following principles would be adopted.

- Installation of water meters to help detect leaks and discourage waste.
- Provision of water butts
- Specification of low-water use fittings and appliances.
- Provision of guidance to householders on how to conserve water.
- Ensure that the design of the buildings and their surrounding landscape maximises water efficiency and minimises water wastage.
- Design surface water drainage systems to take into account future changes in rainfall.

Waste reduction

The following principles would be adopted.

- Work with collection and disposal authorities to promote the waste hierarchy - prevention, minimisation, reuse, recycling, energy recovery, disposal (the least favoured option)
- Ensure that waste collection is considered in building designs to maximise recycling opportunities
- Ensure building designs provide adequate interior and exterior space for storage and segregation of waste
- Consider the choice of building materials with respect to repair, maintenance and eventual decommissioning of the building, and consider incorporating recycled/recyclable material wherever possible

- Consider “in-house” systems for segregation (and collection) of materials, and how these could be successfully integrated with local authority waste collection arrangement
- Provide guidance prior to occupation to householders about composting, local refuse and recycling arrangements
- Provide home composting units

Sustainable transport methods

The following principles would be adopted.

- Bike storage provision would be incorporated within each dwelling curtilage.
- The site is located in a particular well served area in respect of bus routes, and the local train station is a short walk away.
- There are a range of local shops within walking distance within 0.5miles of the site, which is a 8 minute walk.

Air quality Improvement measures

The following principles would be adopted.

- The primary source of heat would be a Class 5 Boiler to BS EN 297:1994, 98% efficient gas combination boiler. However, if this were to prove to no longer be compliant to current regulations, then an air source heat pump system would be used as an alternative.

Occupier Information Pack

The dwellings would be constructed by a builder that is registered with a warranty provider such as NHBC or Premier. It is a requirement of that warranty that the builder provides a document similar to the NHBC “*Guide To Your New Home A Practical Guide To Looking After Your New Home*” and a Health And Safety information pack for owner-occupiers.

- The first document explains the moving in and ‘settling in’ process and how to manage and control the essential services to improve thermal efficiency, lower energy costs and reduce the carbon footprint of the dwelling.
- The health and safety information pack for owner-occupiers is a must-have information pack for all new homes must be provided in order to comply with current legislation. This health and safety information pack fulfils this requirement and additionally provides owner-occupiers with details on appliances installed in their home, service providers and a facility to record alterations and improvements that may be carried out in the lifetime of the property.

[End Of Statement]