

# Sustainable Construction Checklist

## Rev 1. Notes 14th March 2024

### 1. Energy Efficiency

**1.1 Have you considered how demand for water heating, space heating and cooling, lighting and power in individual buildings through efficient equipment and controls will be delivered?**

**YES/NO**

YES - Water heating, electric system boiler (99 to 100% efficient) and HW storage tank.  
YES - air source heat pump, for space heating requirements.  
YES - Currently assumed to be provided through natural ventilation (trickle vents)  
YES - App for controlling lighting (whole house system - smart control and remote access) long lifespan LED lighting.  
YES - Mains power electricity, as existing. No PV (unless required).

**1.2 Has the proposal been designed to maximise solar gain (passive light & heating from the sun) through site layout and building design?**

**YES/NO**

YES - There are no significantly oversized openings which would increase solar gain (or create excessive heat gain in summer months). The dwelling is fairly traditional in design, to match local buildings.

**1.3 Are energy efficiency measures incorporated in the design (e.g. super-insulation, heat recovery, lighting measures)?**

**YES/NO**

YES - Waste water heat recovery system (showers) i.e. <https://zypho.uk/>

**1.4 Will the proposed development include artificial air conditioning and/or ventilation? If so, give details of method.**

**YES/NO**

NO - The dwelling will be designed to comply with current Building Regulations standards for ventilation requirements, with the aim of not adding additional demand for mechanical and electrical requirements. Mechanical extract ventilation will be installed for the Kitchen, Utility, Bathroom, WC and En-suites to meet Building Regulations requirements.

### 2. Low Carbon Energy Generation

**2.1 Has the proposal's energy demand\* been estimated/calculated?**

**\*i.e. the energy demand for all proposed uses: space heating, cooling, hot water, ventilation and lighting that would be consumed by the development when occupied over the course of a full year (in kWh)**

**YES/NO**

NO - Not at this time, an energy assessor has not been appointed.

**2.2 What % of the proposal's energy demand will be produced from on-site renewable energy technologies? Will the development use any off-site renewable energy sources?**

**\*i.e. the energy demand for all proposed uses: space heating, cooling, hot water, ventilation and lighting that would be consumed by the development when occupied over the course of a full year (in kWh)**

**YES/NO**

**YES - An Air Source Heat Pump is to be installed - as the heat from the air is generated by the sun, the energy that heat pumps produce is classed as renewable. Potential for PV array generating electricity - this would also provide the energy for running the ASHP and water heating (if electric).**

**2.3 Will the development be designed so that it can connect to and/or contribute to a local heat network?**

**YES/NO**

No local infrastructure.

### **3. Sustainable Construction Techniques**

**3.1 Will the development use materials from secondary or recycled sources, with low-embodied energy, and/or from sustainable/local sources? Are there any plans to re-use materials that currently exist on site?**

**YES/NO**

NO - traditional construction type for cost purposes (also a 'Modern Method of Construction' dwelling can cause issues when applying for mortgages etc). Existing site materials would not be re-used for the proposed new dwelling. It may be possible to reclaim some of the building materials for re-use (or masonry broken up for hardcore sub-base, subject to feasibility).

**3.2 Has a Construction Environmental Management Plan (CEMP) or similar (e.g. registration with the Considerate Constructor Scheme) been prepared?**

**YES/NO**

NO - Not at this time. A contractor has not been appointed, due to early stage of project. Environmental impacts will be identified and considered throughout the demolition and construction phases of the project.

### **4. Sustainable Waste Opportunities**

**4.1 Are there any specific proposals to divert waste generated from the construction of the proposal from landfill?**

**YES/NO**

NO - Unless some materials could be re-used on site i.e. to build an outbuilding.

**4.2 Has the proposal been designed to include suitable screened space for the storage of waste and recyclables in or adjacent to each building? Or has such space already been provided?**

**YES/NO**

YES - There would be sufficient space to the sides of the dwelling(s) to screen bin storage, so that they would not be visible to the front.

**5. Other considerations**

**5.1 What Electric Vehicle charging infrastructure, in line with the Parking Standards SPD, is included within the proposal? Where applicable, please state the number of charging points provided.**

**YES/NO**

YES - 1 New Electric Vehicle charging point (for each new unit) as required.