

SUSTAINABILITY STATEMENT (-)

Re: Works to 7 Sydenham Villas Road, Cheltenham, Glos GL52 6EG

This application is for proposed works to no. 7 Sydenham Villas Road, Cheltenham, Glos.

Sustainability design and construction measures

The proposed extension and alterations will all be built in accordance with the Cheltenham Climate Change SPD and the following Building Regulation Approved Documents relating directly to sustainability, energy performance and resources:

F - Ventilation

G - Sanitation, hot water safety and water efficiency

H - Drainage and waste disposal

L - Conservation of fuel & power

O – Overheating

S – Infrastructure for charging electric vehicles

Water efficiency: Reasonable provision will be made by the installation of fittings and appliances that use water efficiently for the prevention of undue consumption of water. All newly fitted appliances will be A rated.

Surface water drainage: Subject to suitable ground and subsoil conditions - Storage will be provided for rainwater collection with a soak away to service any excess surface water drainage collected from the roof of the extension/ dwelling. Hard standing surfaces will be constructed with a fall in order to

drain water naturally away from the property. The above will be implemented in order to eliminate additional demand on the existing drainage infrastructure in the locality. Foul drainage will remain connected to the main sewer.

Conservation of fuel & power: The applicant is exploring the feasibility of installing an AAA+ rated Air Source Heat Pump system to replace the existing hot water and central heating system. We have been advised this may be suitable for the basement only. Within this proposal, when the heating system to the main house is next upgraded the central heating system will be zoned and each zone will have an independent heat control valve. The walls, floor and roof to the extension will all be constructed using modern insulation which will meet all U-value requirements. All light fittings will be fitted with low voltage, high efficiency bulbs. Showers and taps will all be fitted with flow restrictors and the toilet cisterns will be dual flush in order to reduce water consumption. The applicant will also explore the feasibility of installing Solar photo voltaic technology in order to reduce the reliance on mains electricity.

Waste disposal: Separate bins will continue to be utilised to aid the storage and collection of recyclable waste product.

Construction materials: All construction materials and internal fittings will be sourced locally in order to reduce transportation CO2 emissions.

SPD Key Measures

- - Avoid overheating: Shutters and blackout blinds will be provided to prevent overheating.
- - Heat loss: If required in the future we will explore secondary glazing.
- - Renewable energy: The applicant will explore the feasibility of installing an AAA+ rated Air Source Heat Pump system to replace the existing hot water and central heating system. Within this proposal when the heating system is next upgraded the central heating system will be zoned and each zone will have an independent heat control valve. The applicant will also explore the feasibility of installing Solar photo voltaic technology in order to reduce the reliance on mains electricity. Part of the new proposed basement extension will be available for siting the required hardware.
- - Smart Energy: Smart technology and appliances will be incorporated where possible.

- - Water: Reasonable provision will be made by the installation of fittings and appliances that use water efficiently for the prevention of undue consumption of water. All newly fitted appliances will be A rated.
- - Ventilation: Mechanical ventilation will be incorporated in order to improve internal air quality and energy efficient ventilation.
- - Waste: Separate bins will continue to be utilised to aid the storage and collection of recyclable waste product.
- - Embodied carbon: The extension has been designed so that all materials can be sourced locally in order to reduce transport related carbon emissions. The client intends to make use of recycled and/ or sustainably sourced building materials.
- - Flooding: Subject to suitable ground and subsoil conditions - Storage will be provided for rainwater collection with a soak away to service any excess surface water drainage collected from the roof of the extension/ dwelling. Hard standing surfaces will be constructed with a fall in order to drain water naturally away from the property.
- All measures will be taken throughout the construction process to reduce carbon emissions and waste product. Carbon reduction technologies will be incorporated whenever the technology becomes available and in the best interest of the environment and health of the future owner/ occupier.