

SUSTAINABILITY PLAN

This report has been prepared in support of planning permission to convert an existing 4 storey residential property (including basement level) into 8 no. residential flats at 81 Fordwych Road London West Hampstead. The proposal will consist of 4 no. studio flats, 3 no. 1 bedroom flats and 1 no. 2 bedroom flat.

The objective is to make the existing property as energy efficient as possible by maximising the use of sunlight, thermal mass and natural lighting, heating and cooling of the property.

Cooling hierarchy

Minimising energy consumption before addressing energy supply is key part of low carbon design, this is achieved with the use of the best available building materials, methods and practices.

The existing external envelope of the entire building will be upgraded with high performance insulation fitted to the internal perimeter walls, with this, the building will retain the heat gained early in the day throughout the remainder of the day, thereby minimising the need for heating in the winter. This will also help buffer internal temperatures against rising external temperatures during the summer months. All the windows have been fitted with double glazing to enhance the fabric of the building.

Natural ventilation is proposed to minimise overheating, as such every habitable room is cross ventilated where possible. With existing high ceiling, the heat accumulation is further minimised. The mechanical heating and ventilation proposed will be as efficient as possible. All lighting will be low energy LED.

Materials, sourcing and waste

Sustainably materials from manufacturers with proven records/certificates sourced from local builder's merchants will be used in construction. Where ever possible materials with low embodied carbon will be used, and construction waste will be prevented / minimised from the design stage onwards.

Water efficiency and SuDS (including rainwater and greywater harvesting)

Part G of the Building Regulations states that new dwellings must achieve a maximum water usage figure of 125 litres per person per day, however, the development will aim to achieve 110 litres per person per day (see attached water calculation).

This will be achieved with the installation of water efficient appliances like washing machines, and dishwasher which will get dishes and clothes just as clean but will use less water doing it. Flow restrictors, low flow showers heads and low flow W/S's will also use less water improving water efficiency in the property.

Building Management Systems, metering, monitoring and management

The inclusion of metering will allow energy consumption to be monitored, although this will not in itself reduce energy consumption, however, it will allow for efficient energy management of the development. The installation of metres allows energy use to be monitored and recorded, with the aim of encouraging building users to conserve energy.

There are a number of ways in which CO2 reduction can be met and exceeded, for this development, the fabric first approach forms the basis on which green technologies can be applied most efficiently and will provide future proofed and flexible approach to energy.