

ENERGY AND SUSTAINABILITY STATEMENT

The client's brief has always been to achieve as close to passive as possible and certainly to exceed the current Building Regulations. This will be covered in detail at the Building Regulations/working drawing stage.

Below is a schedule of relevant proposals:

- The overall construction will be primarily of traditional insulated cavity construction or a high performance timber-framed system providing both a wall and roof U-value of c. 0.14.
- Windows will be triple glazed averaging c. 0.79 or Fineo 6.7mm glazing system.
- Air tightness target is of 0.6 air changes per hour at 50 Pascals pressure to eliminate energy loss.
- Heating and ventilation will be provided by a heat pump ventilation system (HPV) which will provide heating and cooling and includes an HPV air to water heat pump with a 300 litre hot water cylinder.
- HPV 1 unit provides a ventilation requirement of 191m³/hr together with 3.2kW of heating and 2.2kW of cooling.
- The installer will carry out a detailed room-by-room heat loss appraisal for optimal design.
- The system is intended to employ Mechanical Ventilation with Heat Recovery (MVHR) to enhance air quality and comfort, both for heating and cooling.
- The integrated heat pump achieves a heat recovery of up to 90% and has an automatic summer bypass for efficient cooling.
- Solar PV panels on South roof slopes to the rear two storey element and garage together with battery storage is also proposed, subject to Planning Permission.
- Rainwater storage will be by rainwater butts and used to irrigate the garden.
- Low water use WC cisterns, wash basins, baths/showers will be installed.
- Cycle storage and an Electric Vehicle charging point is provided.
- Biodiversity Nett Gain (BNG) has been addressed by a professional report and a responsible attitude will be taken to landscaping and the provision of planting that will encourage diverse habitats for wildlife.

- The street frontage hedgerow will be retained as shown on the planning drawings together with additional native hedgerow.
- Finally, the contractor will be encouraged, as far as possible, to use subcontractors, material and product supplies sourced locally from known and trusted companies.