

project

alders farm, hurstpierpoint

sustainability

the proposed dwelling has been designed to minimise energy consumption through a fabric first approach. a highly efficient structure with minimal thermal bridging and low airtightness will ensure heat loss through the fabric is negligible.

to ensure thermal comfort is maintained throughout the year, the building fabric will use natural insulation products that will slow down solar gain through the structure in the summer months. this lightweight construction will be coupled with an exposed slab to provide additional thermal mass which will benefit the property throughout the year.

a highly efficient heat recovery ventilation system will be installed to provide filtered and tempered fresh air to all habitable rooms, maximising internal air quality and further reducing space heat demand.

heating and hot water will be provided by an air source heat pump, the external unit will be located on the north elevation to minimise visibility of the external unit from surrounding area. coupled with the highly efficient fabric and use of underfloor heating the use of an air source heat pump is the ideal solution for the dwelling.

low flow fixtures and fittings will be installed throughout to ensure internal water consumption is limited to 105l per person, per day.

flush, inline pv arrays will be installed on west facing roofs to help minimise visibility from the surrounding areas. the nominal 12kw system will be coupled with battery to offset electrical consumption throughout the year.
