

Hawthorn Walk has undergone a major transformation in Spring 2022 as part of a planned, deep retrofit. In this first phase we topped up loft insulation with woodfibre and hemp, changed our windows to timber framed triple glazed units, filled the cavity wall, and wrapped the house with woodfibre insulation, finished with a lime-base render / partial timber cladding sourced from local urban tree management processes.

We also installed mechanical ventilation with heat recovery which provides fresh air at near-room temperature without the need for trickle vents and allows us to tighten up the envelope to a very high standard of air tightness by removing moisture at source.

We are already reaping the rewards of this and seeing more modulated temperatures inside the dwelling, even coping with the recent heat wave.

With an 18 panel PV array, 12 on the South West facing pitch and 6 on the East, the dwelling is likely to be close to net zero in the next few years: once the floor is also insulated and ceilings are re-furbished for airtightness, the dwelling will only need minimal heat input on the coldest of days.

Hot water storage will allow us to use immersion and store up excess energy from the solar power generation.

Purpose made external shutters will be installed over the next two weeks to ensure more comfortable summer nights.

Modelling was carried out using the Passivhaus Planning Package (PHPP) and the Carbon Coop's / People Powered Retrofit tool, the Home Retrofit Planner (HRP).

Further information - including cost info - can be found on <https://humblebee.eco/blog>.



You can visit the house as part of Wilmslow's Festival of Nature, with an Open Homes tour on 17th September 2022. Please book here: <https://www.festivalofnature.co.uk/event-details/>