CASE STUDY: ST HELIERS FAMILY HOME

DeepRetrofit Assessment & interventions for a St Heliers Family Home

Home Owner:

Mike

Solutions

DeepRetr0fit® Consultation

Updated living room heat pump

Replacement LED lighting

Draught Stopping Measures

Ground Moisture Barrier

Whole-of-House Ventilation System

Date

October 2022

10/22

"Our typical family home in St Heliers had many things done right, but our home still wasn't performing the way we wanted it to. Getting a DeepRetr0fit® assessment was the right move for us so we could learn more about what was affecting the comfort and efficiency of our home." - Mike

OVERVIEW

This family home in St Heliers had already been renovated with some solid interventions undertaken such as:

- Ceiling insulation when the roof was replaced
- Underfloor insulation throughout
- Wall insulation where the linings were removed
- Extraction ventilation in the kitchen & bathroom

The owners really wanted to get their home performing, so they commissioned a DeepRetr0fit® assessment and report to help get them started.

The Deep Retrofit report concluded that there were a number of easy gains to be had:

- The walls of the attic space facing into the living and bedrooms needed insulation
- There were a lot of old halogen light fittings that could be replaced with modern LED's (with insulation safety clearances to be filled at the same time)
- The existing heat pump was old and no longer heating the living room efficiently

St Heliers Home

→ Ceiling & Underfloor insulation reasonable
→ Some wall Insulation
→ Old light fittings
→ Draughty windows & doors
→ Heat pump past its best

From Enstall

"Old recessed lighting, especially halogens, gets very hot. This is bad on multiple fronts as it wastes energy, insulation needs to be spaced well away for safety (leaving gaps) and it could represent a fire hazard.

"Modern LED fittings use less energy and are safe to cover with insulation" – Nick Hall

Owner's comment

"Now that there is new technology in recessed lights that make them more efficient and don't require a safety clearance from the insulation we are looking forward to getting rid of these gaps.

"Additionally installing a Ground Vapour Barrier to reduce the indoor relative humidity will mean our heat pump is more efficient" – Mike

The DeepRetr0fit® Report

To begin the process, Enstall conducted a DeepRetr0fit® assessment of the property. The DeepRetr0fit® process consists of an hour and a half assessment looking at three key areas;

- *Thermal Envelope*
- *Heating & Ventilation*
- *Energy Efficiency*

The resulting report provided an Action Plan to help the customer achieve their goals.

New efficient living room heat pump

Halogen light fittings, gaps in insulation and energy wasted through excess heat created

The Action! (so far)

Replacement Heat Pump

✓ The owner has replaced their old heat pump with a more modern unit
✓ The new unit is twice as energy efficient and gets the living room to the right temperature quickly
✓ It also provides benefits to the bedrooms

Next Steps

✓ Replace old recessed light fittings with modern LED fittings
✓ Install insulation into the gaps which were left for safety around the old halogen fittings
✓ Draught stopping interventions to windows and doors where required
✓ Whole of house ventilation system
✓ Replacing old single glazed windows with new double glazing
✓ Installing insulation into the ceiling areas where it is missing and upgrading where space allows
✓ Upgrading the underfloor insulation by infilling the remaining space
✓ Photo-voltaic solar panels to be installed with on-site battery storage

Wall insulation missing in ceiling space walls

Space for infilling underfloor insulation with additional

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