



Pioneering Passivhaus

Build It | Eco Home of the Year 2017



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Corvalla was the first Passivhaus property to be built on the Isle of Man.

“Even I was surprised at how low my quarterly bill over the most demanding months up to the end of December has actually been... I just can't understand why all homes are not built this way”

Mr K Kniverton, Client



Passivhaus Partners

We worked with Complete Construction Services (CCS) and renewable technology specialist SNX.

We trained CCS's island-based workforce to construct our certified Passivhaus build system.

Pioneering Passivhaus

Corvalla, a four-bedroom new build, designed in a Manx vernacular style, was the first Passivhaus to be built on the Isle of Man. It won the 2017 Build It Award for Best Eco Home.



Client	Mr K Kniveton
Location	Port St Mary, Isle of Man
Brief	To build a residential 4-bedroom cottage in a Manx vernacular style with Passivhaus performance standards

Building New Skills

Corvalla was designed by Beattie Passive and constructed locally on the Isle of Man by Complete Construction Services and SNX.

The build progressed quickly and smoothly. The structural thermal envelope was manufactured on the Isle of Man by CCS operatives who had completed our training course.

“What stands out to us is the performance of the finished product. It does exactly what it says on the tin. We have more Passivhaus projects in the pipeline and hope that, one day, all new properties on the Island will be Passive”

James Vickers, CCS, Contractor

The benefits of Passivhaus include superior levels of energy efficiency and comfort, which leads to far lower heating bills and a substantially reduced environmental impact.

Corvalla boasts breathtaking views of the Port of St Mary coastline.



Technical Specifications

- **Wall U Value:** 0.11 W/m²k
- **Airtightness:** Below 1³/hm²@50pa
- **Floor U Value:** 0.12 W/m²k
- **Sound Proofing:** 63dB
- **Roof U Value:** 0.11 W/m²k

"The system is so robust and seems to deal with anything nature can throw at it. Each of the dedicated tests - thermography, structural and airtightness, were passed first time"

James Vickers, CCS, Contractor



Corvalla is built to Passivhaus standards. It is smartly insulated, highly efficient and airtight.



Q&A

Kevin Kniveton

We talk to our clients about their experience of designing and building a Passivhaus using the Beattie Passive build system.

When and why did you begin planning to build your own home?

We had always wanted to build our own home and we were fortunate enough to have land in the south of the island. There was an existing ruin, which was knocked down and replaced with a Passivhaus.

What was your first impression of Passivhaus when suggested by James Vickers at CCS?

Having an engineering background, I was very interested in the idea and the potential benefits. Initially, I had to convince my wife, but she's a convert now.

How did you find the Beattie Passive design process and working with SNX and James Vickers?

It worked very well. The original construction drawings were changed from a traditional build to Passivhaus, but took no longer and we had no concerns about the change in the construction method.

What impressed you most about the build process?

We were struck by the attention to detail. Every joint and seal is 100% accurate throughout the entire build. The speed of the on-site manufacture and delivery was similar to a traditional build but the quality and level of detail provided by CCS was impressive.

What were you most looking forward to about your new home?

As this was a Passivhaus project, we were looking forward to seeing just how much energy we would save. This was our family's first proper home (having lived in a small flat previously) and, as an engineer, the technical side interested me from the outset.

What has been your experience of living in a Passivhaus and how does it compare to a traditional house?

The minimal level of external noise is noticeable. We live in a windy spot overlooking Port St Mary and the triple glazing and overall insulation has been a revelation! Furthermore, the solar panels provide us with very hot water and we've noticed a better level of air quality within the home.

Is there anything that has surprised you about living in a Passivhaus?

The overall performance and warmth of the house stays constant throughout the year, regardless of the season. Despite being a traditional style of home, the Passivhaus element takes it to another level.

