

# Homes for the Homeless

Passivhaus | Modular | Relocatable

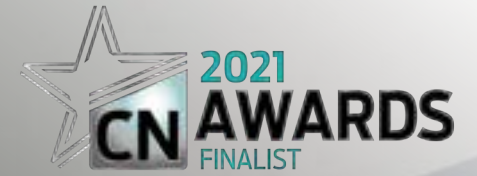


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Hayes Place provides temporary accommodation for homeless people in Cardiff, Wales.



#### Passivhaus Performance

The homes at Hayes Place are all built to the Passivhaus standard of energy efficiency and comfort. This results in far lower energy bills and a substantial reduction in carbon emissions.

## A Higher Standard of Living

These volumetric modular homes are built to the Passivhaus standard and can be relocated to cope with changing housing demands.



# Haus<sup>4</sup>Studio



## Ending Fuel Poverty

Passivhaus requires as little as 10% of the energy used by a typical central European building for space heating and cooling.

As you would expect, this has a profound impact on heating bills. With Passivhaus, we can end fuel poverty and build a brighter and more prosperous future for everyone!

Client	Cardiff Council
Location	Cardiff City Centre
Brief	To design, build and assemble 19 new Haus4Studio apartments to provide temporary accommodation for homeless people in Cardiff.





Hayes Place is situated on a car park and provides temporary accommodation for homeless people in Cardiff.





## Modern Methods of Construction

We build our modular volumetric homes at our offsite factory. Studies show that offsite manufacturing consumes 67% less energy than traditional construction methods and can reduce embodied carbon by over 45%.

### Benefits

Speed • Safety • Sustainability • Quality  
Predictability • Social Value • Cost



### Offsite MMC

Built to rigorous Passivhaus performance standards, our modular homes are highly energy efficient. Unlike traditional housing developments, which can often take a long time, modular housing can be delivered comparatively swiftly.

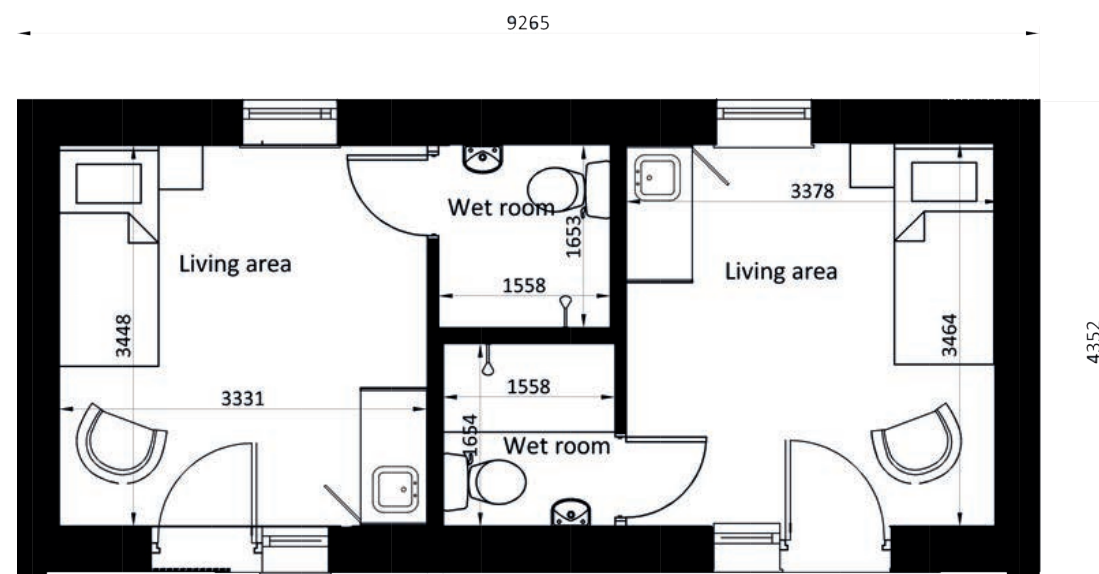






## Room Layout

Haus4 is an award-winning range of relocatable modular homes that combines all the energy efficiency, comfort and carbon-saving benefits of Passivhaus with the cost, speed and versatility of volumetric construction.



Overall GIA: 29.3m<sup>2</sup>

Each studio GIA: 14.65m<sup>2</sup>

## Haus4studio is the ideal solution for the UK's housing crisis!

Each modular unit contains two self-contained studios which are fully manufactured offsite, delivered and installed ready for occupation within hours.

- Individual units or can be stacked in multiples
- Passivhaus standards and all the benefits of the Beattie Passive build system
- Fast connections to main or temporary services
- Lightweight foundation requirements
- Relocatable without major structural alteration
- Built for 60 year plus life span
- Minimal energy demand (possibly 100% off grid - Net Zero)

## Beattie Passive's innovative system lifts building standards

- Structural thermal envelope delivers Passivhaus energy efficiency and comfort
- High quality assured product, through rigorous testing and certification
- Full design flexibility - any design, shape or style
- Reduced heating requirements - lifting residents out of fuel poverty
- Sustainable materials and low carbon footprint
- Healthy and comfortable homes - no drafts or overheating and helps to reduce health issues such as asthma and hayfever
- High levels of sound, fire, flood and radon protection





## Fabric First

Our fabric first approach to the structural thermal envelope maximises airtightness and minimises thermal bridging to prevent heat loss.

Essentially, the building itself does all the hard work. If you want to add in a source of renewable energy, you can reach a Net Zero balance.





## The Benefits of Timber

Designed and modelled in the Passivhaus Planning Package (PHPP) and constructed around a sustainable timber frame, our patented build system maximises airtightness and minimises thermal bridging to dramatically reduce operational and embodied carbon.



**Above:** our patented Passivhaus certified timber frame build system.

**"We use timber because it has the lowest embodied carbon of any mainstream material"**

Ron Beattie, Founder and Managing Director, Beattie Passive

With over 100,000m<sup>2</sup> of manufacturing space, we can deliver large offsite projects.

Our offsite operations are unimpeded by external factors - such as the UK's famously inclement weather!





## Technical Specifications

- **Wall U Value:** 0.11 W/m<sup>2</sup>k
- **Airtightness:** Below 1<sup>3</sup>/hm<sup>2</sup>@50pa
- **Floor U Value:** 0.12 W/m<sup>2</sup>k
- **Sound Proofing:** 63dB
- **Roof U Value:** 0.11 W/m<sup>2</sup>k



### Comfort, Health and Wellbeing

The homes provide Passivhaus standards of thermal comfort and air quality. An MVHR system removes dust, pollutants and allergens.

## Passive Performance

We design using the PHPP and we model all our projects in 3D BIM using REVIT. We build to Passivhaus standards every time, without exception, and we inspect and test at every stage to maintain our exemplary standards.





## Accreditations & Certifications



## Our Patented Passivhaus Build System

Beattie Passive is the first UK company to be certified by the Passivhaus Institut in Germany for a complete build system.

We're certified by BOPAS (the Buildoffsite Property Assurance Scheme) to give you complete confidence in our offsite manufacturing capabilities and the overall quality of the modular homes we build.





# Accolades & Awards 2022



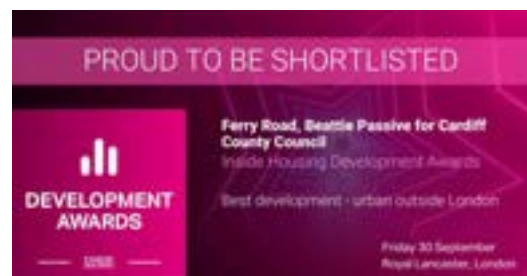
- Project of the Year
- Contractor of the Year
- Best Use of Timber
- Offsite Pioneer of the Year
- Building Performance Pioneer



- Project of the Year
- Low Energy Project of the Year



- Carbon Reduction Champion
- Net Zero Trailblazer of the Year
- Offsite Specialist of the Year



- Development of the Year



- Excellence in Sustainability (Highly Commended)



Hayes Place was the precursor to our larger Passivhaus Plus Net Zero development in Cardiff

Hayes Place | Cardiff

## Our Story

**We're an award-winning technology innovation company**

Beattie Passive was born from a desire to raise building standards. Since our inception, we've built over 450 modern, energy efficient, low carbon and Net Zero homes.

### Taking Action. Now.

Today, Beattie Passive is focused on overcoming the huge challenges facing construction and the housing sector. We're in the midst of a housing crisis, a cost-of-living crisis and an energy crisis. And we're all under threat from climate change.

At Beattie Passive, we're always keen to work with people that share our passion for energy efficient, low carbon housing. Together, we can make a real difference.

**To find out more, give our team a call on 01953 687332 or email [enquiries@beattiepassive.com](mailto:enquiries@beattiepassive.com)**



**Founder and MD  
Ron Beattie**



