

Delivering Passivhaus Plus at Scale to Help Tackle the Housing Crisis



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Passive



In partnership with



The background to current housing pressures in Cardiff

In December, Cardiff announced a housing emergency with the demand for temporary housing far exceeding supply.

New ways of delivering high quality, temporary accommodation are desperately needed in order to mitigate current housing pressures

Learning from emergency housing projects delivered during the pandemic, the rapid installation of modular homes as a meanwhile use of future development sites can offer a realistic solution.



What are the Current Pressures?



Cardiff has around 1,700 Temporary Accommodation units
(707 families, 806 singles, and 186 young people)
However, all Temporary Accommodation Units are full.



28 more families are entering accommodation than are exiting to permanent homes each month



Combined **waiting lists** for Temporary Accommodation are **up 150%** since 2021



Single people presenting for Emergency Accommodation has increased to **88 per night**



The number of people **rough sleeping** has increased to **43**

There are 8,000 people on the housing waiting list

Demand for affordable housing is far exceeding supply

Emergency response

- Due to this demand, short-term emergency accommodation has been established
- The Council now has exclusive use of 4 hotels, offering 326 units of accommodation.
- Support from council staff is available on all sites and other services, such as Early Help, Play, and Advice Services also provide assistance from these locations.
- However, this is not a long-term solution and new high-quality and sustainable homes providing temporary accommodation is needed.
- Working in collaboration with modular providers and a contracting partner, supported by Transitional Accommodation Capital Programme (TACP) grant funding from Welsh Government, Cardiff is delivering a significant meanwhile use across the city

Leading the Net Zero Housing Revolution with Passivhaus

Beattie Passive deliver an award-winning, innovative design and build system that simplifies the delivery of Passivhaus and Net Zero homes.



44 patents for new build and retrofit in 96 countries



First Build System certified by the PHI



Over 600 homes built to Passivhaus Standard



Saved 2,987 tonnes/m² of carbon



Multiple flexible delivery methods incl. modular

We're working to promote Passivhaus as the optimal route to achieve Net Zero in housing. Our team is also highly experienced in delivering EnerPHit standard deep retrofits to decarbonise your existing housing stock.

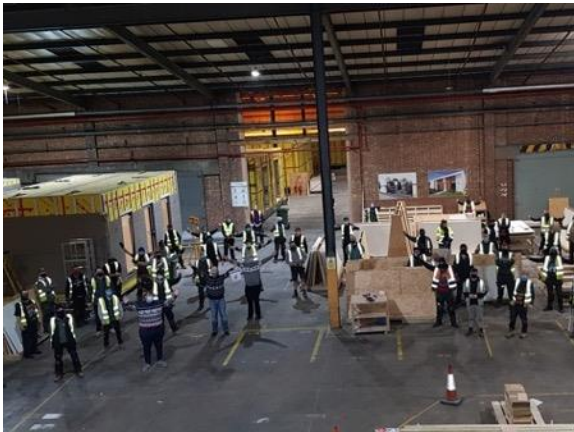


Beattie Passive - Passionate About Raising Building Standards

	Semi-skilled labour	→	Training and employment opportunities
	Flexible design	→	In house technical design - incorporating your designs into our system
	Guaranteed performance	→	Every house is tested and certified to ensure it is built as designed
	Flood proofing	→	Designed in as standard
	Radon protection	→	Built in as standard
	Fire Protection	→	4-hour fire protection to party wall
	Sound proofing	→	Low sound transmission between buildings
	Easy inspection of buildings	→	All structural parts are open for inspection
	Sustainable materials	→	Materials A rating in BRE Green guides
	Site waste	→	Minimal on-site wastage
	Lifetime home – flexible space	→	No load bearing internal walls
	Longevity	→	60 year+ design life

Scaling Delivery to Meet Demand

Our Factory offering enable us to set up factories across the UK, for low capital investment to deliver homes locally whilst also providing employments opportunities.



Employment – **75+**
new jobs for the
local community



For every £1 spent on
locally constructed homes,
£3.19 is put back into the
local economy.



Delivering 400 homes could
save up to **65,500 tonnes of
Carbon**. Whilst,
Retrofitting could save over
52,000 tonnes of Carbon over
the life span of the buildings.

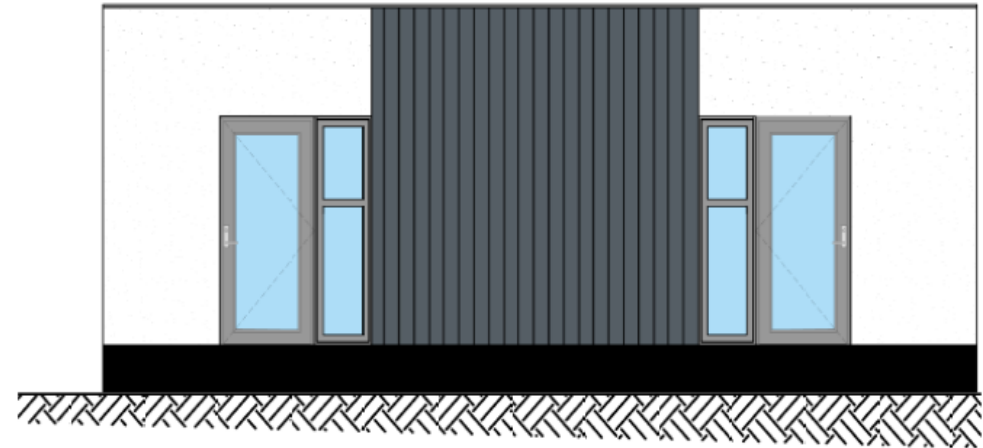
Hayes Place



Hayes Place, Cardiff Council
19 x Haus4Studio Apartments provide Temporary
Housing for Homeless People in Wales



Haus4Studio Floor Plans/Elevations



Ferry Road

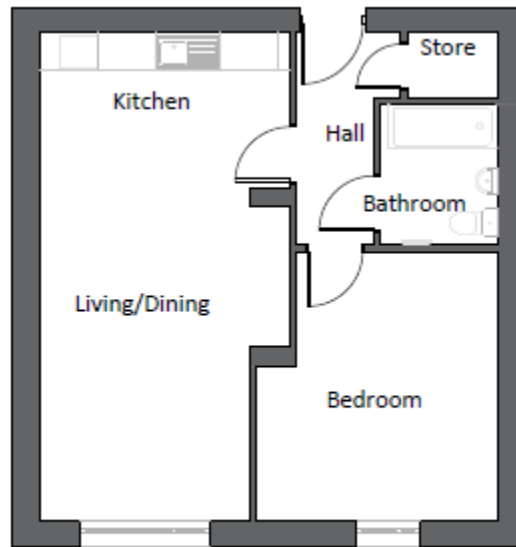


Yr Hafan, Cardiff Council
Net Zero, Passivhaus Plus Certified
48 x 1-2-3 Bedroom Apartments and Community Facilities

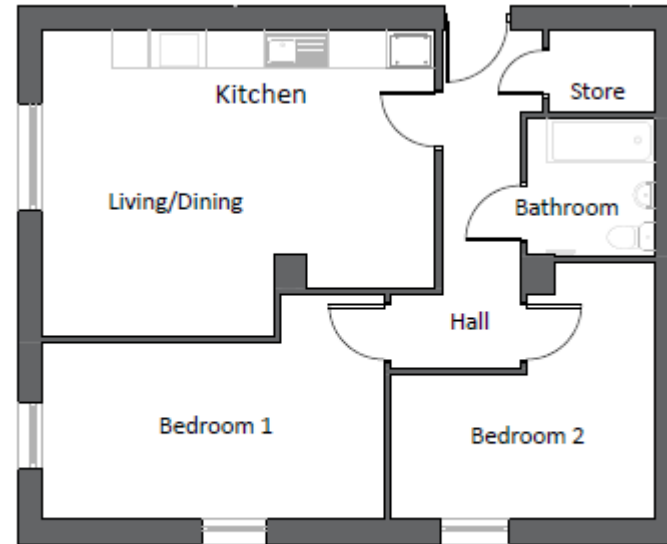




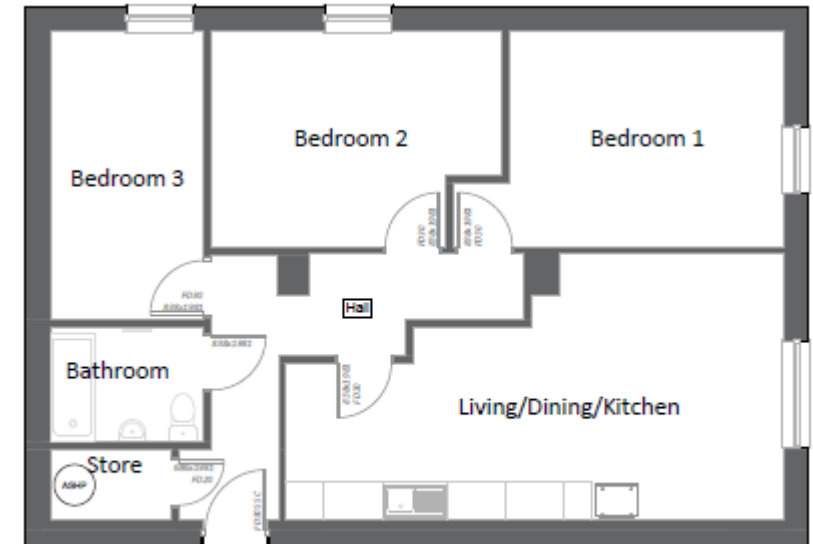
Haus4One, Haus4Two and Haus4Three Floor Plans



1 Bed Apartment



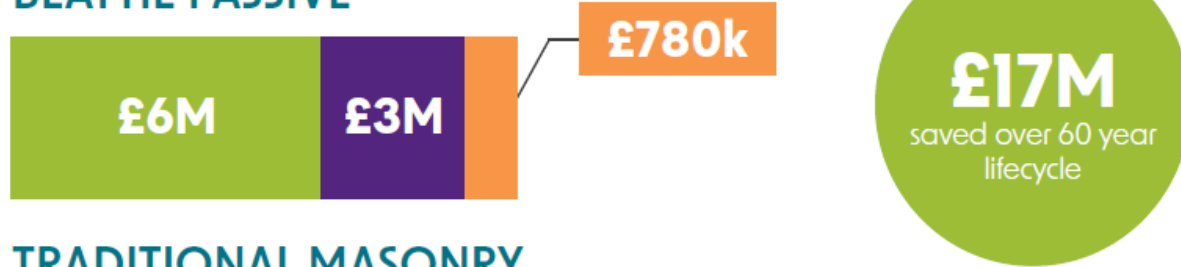
2 Bed Apartment



3 Bed Apartment

Independent Lifecycle Analysis

BEATTIE PASSIVE



TRADITIONAL MASONRY



Fig 1. Potential lifecycle cost savings when compared to a like-for-like traditional masonry build with average energy consumptions. Lifecycle of build assumed to be 60 years, in line with guidance from the RICS.

Fig 3. Carbon saving

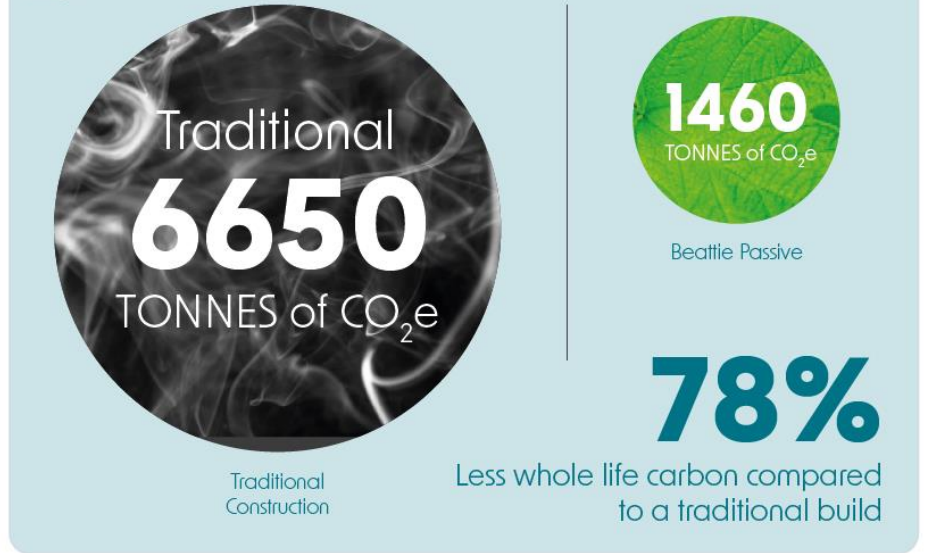


Fig 2. Carbon equivalents



86,483

TREES GROWING FROM SEED FOR 10 YEARS



12,067

BARRELS OF OIL BEING BURNED



1.12

WIND TURBINES RUNNING FOR 1 YEAR

Meanwhile Modular - Gasworks



Phase 1: Award-winning Passivhaus Plus certified, Net Zero rated housing scheme

Phase 2: Additional 155 net zero modular homes and a community centre – 3 Modular Suppliers



Working with Wates in Wales



Contract value:
£44 million

Programme: 14 Months

Welsh Government Grant:
£16 million

Main Contractor – Wates
Daiwa @Home Beattie Passive





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