

Case Study

Fife Housing Association



Project Outline

Location: Inchkeith Drive, Dunfermline, Scotland

Client: Fife Housing Association

Brief: To find a build system that satisfies both Passivhaus requirements and provides high quality, economic homes, allowing clients to address fuel poverty.

Build Requirement: 4 x three bedroom homes – 86m² each

Build Certification: Passivhaus Certified

System Provider: Beattie Passive

Aims of the project:

Economic conditions and a dramatic slowdown in the construction industry have led to a shortage of good-quality, energy-efficient social housing in recent years. Much of the existing social housing stock suffers from minimal or no insulation, and combined with spiralling energy costs, hefty fuel bills often impact hardest on people who can least afford it.

Beattie Passive were instructed to design and build two pairs of 3 bedroom semi-detached homes to meet the needs of the local community. Using traditional and readily available construction materials Beattie Passive's innovative and unique construction method ensures each home exceeds existing code 4 and Passivhaus standards. This is achieved by creating a super-insulated and continuous void around the floor, walls and roof, offering numerous environmental and cost savings.

Each house was certified to Passivhaus standards and reached the Government's new Gold Standard, the first time this has been achieved in Scotland.

“The Beattie Passive Build System offers us the opportunity to achieve Passivhaus certified homes for the same costs as traditional build methods. Using this method of construction will provide our clients with high quality homes which don’t cost the earth to maintain.”

Michael Creech, Fife Housing Association

Technical details:

Ground Floor: U-value 0.09W/m²K

External Walls: U-value 0.11W/m²K

Passivhaus Plus - Testing:

Beattie Passive builds beyond even Passivhaus standards through its rigid inspection of vital build elements, such as air tightness, sound migration, cavity insulation and U-values. Stringent testing using independent partners, ensures each Beattie Passive build is fully tested and verified before certification can be issued.

Benefits delivered:

The Fife Housing Association was the first Beattie Passive project in Scotland, through working closely with the Skills Development Centre the project was considered a huge success and an example of delivering low carbon homes as well delivering social benefits to the community.

Social benefits:

- Through the project Beattie Passive worked with the Skills Development Centre, Fife to improve the skills and employability of young people and adults in the local community
- The scheme aimed to introduce them to the renewable build sector and equip them with the necessary skills to gain long term employment as this market sector grows in the future
- Two young people worked full time on the project, which also involved up to ten others on an ad hoc basis. The full time workers were overseen by Beattie Passive and the Skills Development Workers to ensure they received practical training with a view to grow and widen their skill set
- Each participant began with making the individual build components in the Skills Development Centre, and subsequently followed the build process through to completion by assembling those components on site

Economic benefits:

- Tenants received a dramatic reduction in their energy bills (average bill £140 for 14 months)

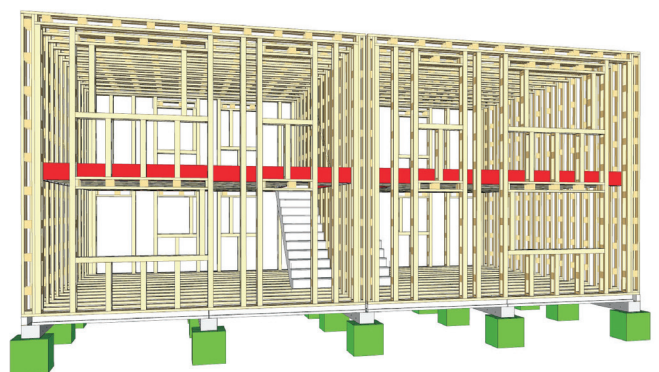
Environmental benefits:

- Reduction in CO₂ emissions by up to 100%



“Our key objectives are to bring people back into employment and equip them with the skills to future-proof against changes in construction methods. Through this scheme, our participants have the potential to benefit from long term employment and ultimately, become the house builders of the future.”

Lucinda McAllister –Skills Development Centre



Why Beattie Passive

Beattie Passive is the first certified Passivhaus build system in the UK and the leader for delivering Passivhaus homes. The innovative Beattie Passive System provides a design technology that simplifies the delivery of Passivhaus and tests and certifies all buildings upon structural completion.

