

# **Beattie Passive**

The Future of Affordable Housing

Incorporating design with full Passivhaus testing and certification, Beattie Passive offers a unique service to Housing Associations, providing homes they need, at a price they can afford.

# Affordability

Housing Associations continually strive to find new ways to build high quality, affordable homes for their local community. Beattie Passive has proven to supply homes at the same cost or less, and in less time, than a traditional build.

#### **Fuel and Environmental Savings**

Each home must deliver impressive environmental benefits to comply with carbon reduction targets as well as provide reduced cost of living for tenants. Beattie Passive's innovative insulation system offers a real and timely solution to fuel poverty.

- Improved energy efficiency
- Reduced carbon emissions
- Reduced cost of living
- Lower fuel bills

#### Lifestyle

Housing Associations tenants will enjoy the benefits of each Beattie Passive build, which offers them reduced cost of living, a healthier more comfortable environment to live in as well as reduced noise migration.

# **Design flexibility**

Beattie Passive's innovative and complete build system comprises of a timber framed structure filled with continuous insulation, adaptable to any building shape or size. We can cater for all housing requirements for the local community, from apartment buildings to terraced housing as well as detached family homes. There are no design limitations for layout or size, and the buildings can be finished in any style required, such as render or brick.

# **Supply Chain and Community Employment**

Beattie Passive's high quality build system bypasses the complex supply chain usually required for traditional builds. Using only semi-skilled labour, our system offers reduced cost and time to build and raw materials are easily available. We also engage with local training colleges to offer handson experience for students and those looking to gain employment in the construction industry.

#### Certification

Each Beattie Passive building is fully tested before certification can be issued, to ensure the Passivhaus standard is achieved. In addition, comprehensive site logs are maintained on-site for the duration of the build as erection checklists for the builder, building control and warranty supplier.





"Our key objectives are to bring people back into employment and equip them with the skills to future-proof against changes in construction methods.

> Lucinda McAllister, Skills Development Centre



# Case Study The Coventry ECO House



#### **Project Outline**

Client: Orbit Homes & FORCE (Forum for Constructing Excellence) Location: John Rous Avenue, Coventry

**Build Requirement:** 2 x three bedroom homes – 86m<sup>2</sup> each **Build Requirement:** Beattie Passive designed and built two 3 bedroom 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 delivered one Passivhaus and one Code 6 which was also Passivhaus. This was achieved by creating a super-insulated and continuous void around the floor, walls and roof offering numerous environmental and cost savings.

#### **Key Build Benefits:**

- Costs were kept low due to the simple structural, thermal and air tight detailing which has been fully developed for walls, floors, and roofs.
- System delivered Passivhaus principles in a simple, methodical way that can be easily replicated and scaled up into large developments.
- Quality control was ensured with independent structural sign off, thermal imaging and air tightness testing, all provided as standard.
- Adaptable system transforms any design into high-performance, low-cost homes using semi-skilled labour as well as traditional and readily available construction materials.



Coventry ECO House – Winner in Cost & Build-ability category of the UK Passivhaus Awards 2014.

"The FORCE project in Coventry was an innovative and exciting project and as the client we wanted to ensure the highest possible energy efficiency standard using the Passivhaus principles. We were confident that the Beattie Passive Build System was the right one for the project and would enable us to set a precedent for how Passivhaus technologies are used within Orbit and the sector as a whole."

George Obeng-Manu, Head of Construction for Orbit Homes