



Passive House Competition, Wales, UK

Innovative House Typology:
Designing for Context



The idea of the 'Fair Share house' has not been explored up until now ... this idea is pushing the boundaries of truly sustainable residential design



Prashant Kapour, WSP

The mixed-use, regeneration masterplan for the former Ebbw Vale steelworks site in south Wales includes a hospital, leisure centre, sports pitches, a theatre, high-quality offices, 500 homes and a railway station.

A competition for a pilot project, to be built out as part of the initial phase, sought innovative and affordable designs to meet PassivHaus standards.

The brief asked for 2 and 3 bed, passively designed houses that were sympathetic to the context and could be delivered for the same cost as standard starter homes.

JTP took a comprehensive approach, to address all aspects of sustainability associated with residential life, not just carbon emissions produced by the home.

Project Delivery

- A shortlisted scheme for a unique, compact, 2-bed house, specifically designed to respond to the site orientation and the Welsh climate.
- Creative floor plans that accommodate 21st century family living with a landing space for home working and a bunk space in the second bedroom.
- A highly insulated building envelope incorporating innovative materials to improve performance.
- An innovative summer ventilation system whereby excess heat gathered from under the photovoltaic array is released at the top of the solar chimney to exaggerate the stack effect.
- A mechanical system with heat recovery to ventilate the home in winter.

