

**Camden PassivHaus, London,  
by Bere Architects**

The project is a 120m<sup>2</sup> single family house split over two floors, with two wild flower meadow roofs and a south-facing garden. The house superstructure was prefabricated in Austria. Walls are 240-280mm thick prefabricated insulated timber framed panels clad in the factory with European larch fixed with untreated softwood battens.

CO<sub>2</sub> emissions have been minimised with insulation, draught-free construction, triple-glazed windows and a solar thermal panel. All details were thermally modelled by the architects to prevent cold bridges and eliminate cold spots that would risk mould growth and damp patches. Automatic solar shading by external venetian blinds on the south elevation will control heat gains in summer.

The house uses non-toxic materials throughout, together with heat-recovery ventilation and water filtration. Careful attention has been given to unregulated energy consumption; while any heat required will come from the air supply, a towel radiator has been installed in each ensuite bathroom. Towel rails are controlled by a switch with a 30, 60 or 120 minute option before switching off. An internal ventilated clothes-drying room and external concealed south-facing clothes drying space discourage tumble drying.

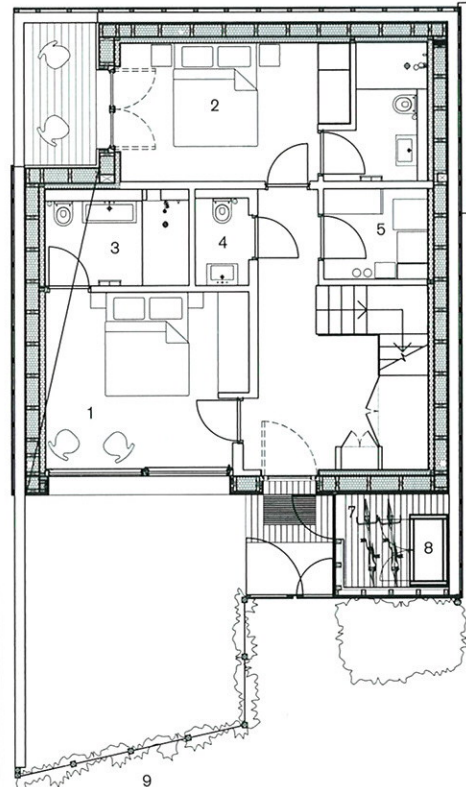
**Credits**

Start on site September 2009  
 Completion Summer 2010  
 PassivHaus certification April 2010  
 Annual heat demand 13 kWh/(m<sup>2</sup>a)  
 Primary energy demand 90 kWh/(m<sup>2</sup>a)  
 Annual CO<sub>2</sub> emissions 10.2kg/m<sup>2</sup>  
 Air test result 0.4m<sup>3</sup> (m<sup>2</sup>h)  
 Insulation Ground floor slab: 380mm wood fibre. Walls: 280mm mineral wool +100mm wood fibre. Flat roof: 280mm PUR + 120mm mineral wool. Sloping roof: 380mm mineral wool. Terrace: 130mm PUR

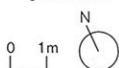


BERE ARCHITECTS

Above Structured panels with cladding were prefabricated



- 1. Bedroom
- 2. Bedroom
- 3. Bathroom
- 4. WC
- 5. Utility/plant
- 6. HRV
- 7. Cycle storage
- 8. HRV
- 9. Ivy-covered gabion wall



Ground floor plan