

SUPERHOME movement

WHAT MAKES A SUPERHOME?



DESIGN | Optimal orientation, function & aesthetics



THERMAL PERFORMANCE | Energy modelled



STRUCTURE | Super-insulated floor, walls & roof



WINDOWS | High-performance & recessed



AIRTIGHTNESS | Confirmed by air test



VENTILATION | Whole home heat recovery ventilation



ENERGY | Solar system, heat pump hot water, etc



WATER | Efficient fittings & rainwater recycling



MATERIALS | Low carbon & responsibly sourced



WASTE | Plan, reduce, reuse, recycle



BASE | BETTER | BEST
Normalising Better Homes

BASE

BETTER

BEST

 DESIGN	Design that is spatial efficient, energy efficient, functional and low carbon. Orientation optimised to minimise overheating potential with appropriately sized glazing and external shading where required to suit elevation orientation. Optimisation of the Design will assist with targeted energy performance as per energy criteria. Design must be peer reviewed by a Superhome Certifier. Verified by Modelling (preferably at design stage) or Monitoring in use for one year. Site specific design. Aim for uplift in biodiversity, landscaping with local native planting and or edible planting and permeable hard landscaping, consider deciduous trees of vines where appropriate for shading.		
	Refer to Superhome Design Guides. Appropriately sized eaves (greater than 700mm) to North and West glazing or other shading (e.g deciduous trees, pergola's, shutters, or other external shading etc to be appropriate to design and orientation. Develop the Superhome Design Brief to align with Superhome Base Better Best criteria.		
 FLOORS	Fully insulated slab, with continuous underslab and full height perimeter insulation, or suspended floor system. Refer Energy for Space Heating Energy Modelling thresholds.		
	50mm VH grade EPS full under slab and edge insulation or XPS. Suspended Floor system with wind wash layer where fibrous insulation used. 2x layers of insulation recommended. A layer between joists and a continuous layer across the bottom of joists with wind wash layer. Construction R value >3.0	BASE+ Suspended floors >R4.0 and one layer of insulation continuous across bottom of joists. For Slabs, specify low carbon concrete.	BETTER+ Suspended floors >R5.0
 WALLS	140mm frame or 90mm framing + internal services cavity (45mm horizontal battens) GIB fix Framing System or equivalent to reduce thermal bridging. All non-essential dwangs/nogs omitted. Structural Cavity battens (40mm) and Rigid Air Barrier.	140mm framing + internal services cavity with other details as for Base. Or EcoPanel Or SIPs (Structural Insulated Panels) or other equivalent wall system.	
	Construction R Value >R3.2 (refer to Design Guide)	Construction R Value >R4	Construction R Value >R4.5
 WINDOWS	>R0.55 Windows installed in line with the wall insulation. Thermally broken aluminium or non-conductive uPVC or timber frames, Low E, Argon filled with thermal spacer, Double glazing, installed with tapes to ensure airtightness, instead of use of a sealant weather seal.	BASE+ >R0.75 Windows.	BETTER+ >R1.0, Double or Triple glazed windows depending on zone and energy modelling.
	Refer SuperWindow recessed details. (> 20% better performance).	High performance window joinery or non-conductive uPVC or timber frames, consider up-spec glazing.	Triple Glazing.
 ROOF	Warm roof or traditional cold roof with adequate roof ventilation and Insulation - Refer Energy for Space Heating Energy Modelling thresholds.		
	R6.6 or less if compliance confirmed by using the calculation method or modelling1. Insulation installed in layers eg. Between structural members (rafters or trusses) and an additional layer above or below.	Recommend an air tightness layer and a 90mm ceiling services cavity, under the trusses or rafters, which can be insulated also after services installed.	

BASE

BETTER

BEST

 AIRTIGHTNESS	< 3 air changes/hr. Building consert Documentation to specify airtightness targeted and testing required on site i.e. Blower Door Test.		
	Difference airtight design strategies can be considered depending on desired target AC/H. Rigid Air Barrier with taped joints, seal between botton plate and floor, avoid or seal all penetrations.		
 VENTILATION	Balanced whole home MHRV with exhaust and supply vents across the property. Fresh air supply, not to be sourced from the roof space.		
	BASE + An efficiency of more than 75% with exhaust and supply vents across the property. Including bathrooms. (no standalone extraction fans)		
 ENERGY	Space Heating Demand of <75kWh/m²/yr Energy Efficient Space Heating sufficient to maintain 18-24 degrees 80% of the time for the whole house. EV charging provision appropriately sized.		
	Space Heating Demand of <45kWh/m²/yr BASE+ Solar PV Panels or other renewable energy source.		
 WATER	Rainwater Collection for irrigation. WELS rated plumbing fiitings - Showers 3 Star WELS, Toilets 4 Star WELS, Kitchen Taps 4 Star WELS, Bathroom Taps 6 Star WELS		
	BASE + Rainwater Collection for irrigation		
 MATERIALS & WASTE	Recycling of all construction waste where possible.		
	BASE + On-site Waste minimisation and management plan fully implemented during construction.		
 AIRTIGHTNESS	< 2.0 air changes/hr. Building consert Documentation to specify airtightness targeted and testing required on site i.e. Blower Door Test.		
	Internal Air-tightness layer, airtighness wrap or other airtightness strategy eg. rigid sheet material.		
 VENTILATION	BETTER + An efficiency of more than 80% installed inside the envelope with exhaust and supply vents across the property. Including bathrooms. (no standalone extraction fans). Designed and commissioned by a professional/superhome participant.		
	Centrally located, bathroom boosts, maintenance record		
 ENERGY	Space Heating Demand of <15kWh/m²/yr BETTER+ Battery storage Or other energy storage.		
	Energy Efficient hydronic or heat pump Space Heating and Heat pump hot water System with low GWP (Global Warming Potential) refrigerant, R290 (Propane) or R744 (CO2). Fully electric, No use of fossil fuels.		
 WATER	Above ground or in-ground tank depending on space or under floors or decks. Washing Machine to be 4 Star WELS and Dishwasher 5 Star WELS		
	Rainwater for flushing toilets is recommended.		
 MATERIALS & WASTE	Design out waste at the design stage, specify natural and/or recyclable low carbon materials.		
	REBRI Waste Management Plan or similar. Prioritise low carbon materials where possible supported by Environmental Product Declarations (EPD's) or Internationally recognised Environmental Credentails https://www.ecolabelindex.com/ . Provide Carbon Calculations.		