



Table 3: Quiet house requirements

Exposure Category	Orientation to corridor	Acoustic rating and example constructions				Mechanical ventilation / air conditioning considerations			
		Walls	External doors	Windows	Roofs and ceilings of highest floors				
A Quiet House A	Facing	Bedroom and indoor living and work areas to Rw+Ctr 45dB <ul style="list-style-type: none"> One row of 92mm studs at 600mm centres with: <ul style="list-style-type: none"> Resilient steel channels fixed to the outside of the studs; and 9.5mm hardboard or 9mm fibre cement sheeting or 11mm fibre cement weatherboards or one layer of 19mm board cladding fixed to the outside of the channels; and 75mm glass wool (11kg/m³) or 75mm polyester (14kg/m³) insulation, positioned between the studs; and Two layers of 16mm fire-protective grade plasterboard fixed to the inside face of the studs. Single leaf of 150mm brick masonry with 13mm cement render on each face. Double brick: two leaves of 90mm clay brick masonry with a 20mm cavity between leaves. 	Bedrooms: <ul style="list-style-type: none"> Fully glazed hinged door with certified Rw+Ctr 28dB rated door and frame including seals and 6mm glass Other external doors to Rw+Ctr 25dB, e.g. <ul style="list-style-type: none"> 35mm solid core timber hinged door and frame system certified to Rw 28dB including seals Glazed sliding door with 10mm glass and weather seals 	Bedrooms: <ul style="list-style-type: none"> Total external door and window system area up to 40% of room floor area: Sliding or double hung with minimum 10mm single or 6mm-12mm-10mm double insulated glazing (Rw+Ctr 28 dB). Sealed awning or casement windows may use 6 mm glazing instead. Up to 60% floor area: as per above but must be sealed awning or casement type windows (Rw+Ctr 31dB). Indoor living and work areas <ul style="list-style-type: none"> Up to 40% floor area: Sliding, awning, casement or double hung with minimum 6mm single pane or 6mm-12mm-6mm double insulated glazing (Rw+Ctr 25dB). Up to 60% floor area: As per Bedrooms at up to 40% area (Rw+Ctr 28 dB). Up to 80% floor area: As per Bedrooms at up to 60% area (Rw+Ctr 31dB). 	To Rw+Ctr 35dB <ul style="list-style-type: none"> Concrete or terracotta tile or metal sheet roof with sarking and at least 10mm plasterboard ceiling 	At least one outdoor living area located on the opposite side of the building from the transport corridor and/or at least one ground level outdoor living area screened using a solid continuous fence or other structure of minimum 2 metres height above ground level.	<ul style="list-style-type: none"> Acoustically rated openings and ductwork to provide a minimum sound reduction performance of Rw 40dB into sensitive spaces Evaporative systems require attenuated ceiling air vents to allow closed windows Refrigerant-based systems need to be designed to achieve National Construction Code fresh air ventilation requirements Openings such as eaves, vents and air inlets must be acoustically treated, closed or relocated to building sides facing away from the corridor where practicable 		
	Side on							As per 'Facing' above, except Rw+Ctr values may be 3dB less, e.g. glazed sliding door with 10mm glass and weather seals for bedrooms.	As above, except Rw+Ctr values may be 3dB less, or max % area increased by 20%
	Opposite							No specific requirements	No specific requirements
A Quiet House A+	All	As per Quiet House A, except double leaf masonry / brick construction only.	As per Quiet House A.	As per Quiet House A, except that <ul style="list-style-type: none"> 'Side-on' requirements same as 'Facing'. All windows comprise minimum 6 mm thick laminated or toughened glass in sealed awning or casement frames. Polymer (e.g. uPVC) window framing should be used. Evaporative air conditioning systems are not recommended. No external doors for bedrooms with entry 'Facing' transport corridor 	No specific requirements				
B Quiet House B	Facing	Bedroom and indoor living and work areas to Rw+Ctr 50dB <ul style="list-style-type: none"> Single leaf of 90mm clay brick masonry with: <ul style="list-style-type: none"> A row of 70mm x 35mm timber studs or 64mm steel studs at 600mm centres; A cavity of 25mm between leaves; 50mm glass wool or polyester cavity insulation (R2.0+) insulation between studs; and One layer of 10mm plasterboard fixed to the inside face Single leaf of 220mm brick masonry with 13mm cement render on each face 	Bedrooms <ul style="list-style-type: none"> Fully glazed hinged door with certified Rw+Ctr 31dB rated door and frame including seals and 10mm glass Other external doors to Rw+Ctr 28dB, e.g. As per Quiet House A Bedrooms. 	Bedrooms: <ul style="list-style-type: none"> Total external door and window system area up to 40% of room floor area: Fixed sash, awning or casement with minimum 6mm single or 6mm-12mm-6mm double insulated glazing (Rw+Ctr 31 dB). Up to 60% floor area: as per above but must be minimum 10 mm single or 6mm-12mm-10mm double insulated glazing (Rw+Ctr 34dB). Indoor living and work areas <ul style="list-style-type: none"> Up to 40% floor area: Sliding or double hung with minimum 6mm single pane or 6mm-12mm-6mm double insulated glazing (Rw+Ctr 28dB). Sealed awning or casement windows may use 6 mm glazing instead. Up to 60% floor area: As per Bedrooms at up to 40% area (Rw+Ctr 31 dB). Up to 80% floor area: As per Bedrooms at up to 60% area (Rw+Ctr 34dB). 	To Rw+Ctr 35dB <ul style="list-style-type: none"> Concrete or terracotta tile or metal sheet roof, sarking and at least 10mm plasterboard ceiling, R3.0+ insulation 	At least one outdoor living area located on the opposite side of the building from the corridor and/or at least one ground level outdoor living area screened using a solid continuous fence or other structure of minimum 2.4 metres height above ground level			
	Side-on							As per Quiet House A 'Facing' above (Rw+Ctr values may be 3dB less, or max % area increased by 20%).	As per Quiet House A 'Side-on' above.
	Opposite							<ul style="list-style-type: none"> Double brick: two leaves of 90mm clay brick masonry with: <ul style="list-style-type: none"> A 50mm cavity between leaves 50mm glass wool or polyester cavity insulation (R2.0+) resilient ties where required to connect leaves Double brick: two leaves of 110mm clay brick masonry with a 50mm cavity between leaves and R2.0+ cavity insulation 	As per Quiet House B, except <ul style="list-style-type: none"> No external doors for bedrooms with entry 'Facing' or 'Side-on' to transport corridor
B Quiet House B+	All	As per Quiet House B example above, except use double leaf masonry construction only.	As per Quiet House B, except <ul style="list-style-type: none"> No external doors for bedrooms with entry 'Facing' or 'Side-on' to transport corridor 	As per Quiet House B, except that <ul style="list-style-type: none"> 'Side-on' requirements become the same as Quiet House B 'Facing'. All windows comprise minimum 6 mm thick laminated or toughened glass in sealed awning or casement frames. Polymer (e.g. uPVC) window framing should be used. Evaporative air conditioning systems are not recommended. 	As per Quiet House C (to Rw+Ctr 40dB).				