





## Acceptable Treatment Packages

## Package A

Area	Orientation to Road or Rail Corridor	Package A (up to 60 dB L <sub>Aeq(Day)</sub> and 55 dB L <sub>Aeq(Night)</sub> )
Bedrooms	Facing	Windows systems:     Glazing up to 40% of floor area (minimum R <sub>w</sub> + C <sub>tr</sub> 28) – 6mm thick glass (monolithic, toughened or laminated) in fixed sash, awning or casement opening with seals to openings.
	Side	Windows systems:     As above.
	Opposite	No requirements
Other Habitable Rooms Including Kitchens	Facing	Windows and external door systems:     Glazing up to 60% of floor area (minimum R <sub>w</sub> + C <sub>tr</sub> 28) – 6mm thick glass (monolithic, toughened or laminated) in fixed sash, awning or casement opening with seals to openings.  Doors to be either 35mm thick solid timber core door with full perimeter acoustic seals. Glazed inserts to match the above. Sliding glass doors to be same performance including brush seals.
	Side	Windows and external door systems:     As above.
	Opposite	No requirements
General	Any	<ul> <li>Walls (minimum R<sub>w</sub> + C<sub>tr</sub> 45) – Two leaves of 90mm thick brick with minimum 50mm cavity</li> <li>Roof and ceiling (minimum R<sub>w</sub> + C<sub>tr</sub> 35) – Standard roof construction with 10mm plasterboard ceiling and minimum R2.5 insulation between ceiling joists.</li> <li>Eaves to be closed using 4mm compressed fibre cement sheet.</li> <li>Mechanical ventilation – Refer following pages.</li> </ul>
Outdoor Living Area		<ul> <li>Locate on the side of the building that is opposite to the corridor if practicable; or</li> <li>Locate within alcove area so that the house shields it from corridor if practicable.</li> </ul>

## Mechanical Ventilation Requirements

It is noted that natural ventilation must be provided in accordance with F4.6 and F4.7 of Volume One and 3.8.5.2 of Volume Two of the National Construction Code. Where the noise limit is likely to be exceeded, a mechanical ventilation system is usually required. Mechanical ventilation systems will need to comply with AS 1668.2 - The use of mechanical ventilation and air--conditioning in buildings. In implementing the acceptable treatment packages, the following must be observed:

- Evaporative air conditioning systems will meet the requirements for Packages A and B provided attenuated air vents are provided in the ceiling space and designed so that windows do not need to be opened.
- Refrigerant based air conditioning systems need to be designed to achieve fresh air ventilation requirements.
- External openings (e.g. air inlets, vents) need to be positioned facing away from the transport corridor where practicable.
- Ductwork needs to be provided with adequate silencing to prevent noise intrusion.

Note: Any penetrations in a part of the building envelope must be acoustically treated so as to not downgrade the performance of the building elements affected. Most Penetrations in external walls such as pipes, cables or ducts can be sealed through caulking gaps with non-hardening mastic or suitable mortar.

## Package B

Area	Orientation to Road or Rail Corridor	Package B (up to 63 dB L <sub>Aeq(Day)</sub> and 58 dB L <sub>Aeq(Night)</sub> )
Bedrooms	Facing	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
	Side	Windows systems:     As above.
	Opposite	Windows systems:  Glazing up to 40% of floor area (minimum R <sub>w</sub> + C <sub>tr</sub> 25) – 4mm thick glass (monolithic, toughened or laminated) in fixed sash, awning or casement opening with seals to openings. Alternatively, 6mm thick glass (monolithic, toughened or laminated) in sliding frame.
Other Habitable Rooms Including Kitchens	Facing	<ul> <li>Windows and external door systems:         Glazing up to 60% of floor area (minimum R<sub>w</sub> + C<sub>tr</sub> 31) – 10mm thick glass (monolithic, toughened or laminated) in fixed sash, awning or casement opening with seals to openings.         Doors to be either 35mm thick solid timber core door with full perimeter acoustic seals. Glazed inserts to match the above. Sliding glass doors to have laboratory certificate confirming R<sub>w</sub> + C<sub>tr</sub> 31 performance. Alternative, change to hinged door with perimeter acoustic seals and 10mm thick glass.</li> </ul>
	Side	Windows and external door systems:  Glazing up to 60% of floor area (minimum R <sub>w</sub> + C <sub>tr</sub> 28) – 6mm thick glass (monolithic, toughened or laminated) in fixed sash, awning or casement opening with seals to openings.  Doors to be either 35mm thick solid timber core door with full perimeter acoustic seals. Glazed inserts to match the above. Glass doors to be same performance (R <sub>w</sub> + C <sub>tr</sub> 28) including brush seals.
	Opposite	No requirements
General	Any	Walls (minimum R <sub>w</sub> + C <sub>tr</sub> 50) – Two leaves of 90mm thick brick with minimum 50mm cavity. Cavity to include 25mm thick, 24kg/m <sup>3</sup> insulation and where wall ties are required, these are to be anti-vibration/resilient type.  Poof and soiling (minimum R <sub>s</sub> + C <sub>s</sub> 35) – Standard roof construction
		<ul> <li>Roof and ceiling (minimum R<sub>w</sub> + C<sub>tr</sub> 35) – Standard roof construction with 10mm plasterboard ceiling and minimum R2.5 insulation between ceiling joists.</li> <li>Eaves to be closed using 4mm thick compressed fibre cement sheet.</li> <li>Mechanical ventilation – Refer following pages.</li> </ul>
Outdoor Living Area		<ul> <li>Locate on the side of the building that is opposite to the corridor; or</li> <li>Locate within alcove area so that the house shields it from corridor.</li> </ul>

ENDORSEMENT TABLE
This Local Development Plan has been approved by Council under Clause 52(1)(a) of the