



## PROVISIONS AS PER LOYD GEORGE TRANSPORTATION NOISE ASSESSMENT, DATED FEB 2015

**PACKAGE A : Noise levels within the 'Margin'**

The following noise insulation package is designed to meet the indoor noise standards for residential developments in areas where noise levels exceed the noise *target* but are within the *limit*.

AREA TYPE	ORIENTATION	PACKAGE A MEASURES
<b>INDOOR</b>		
Bedrooms	Facing or Side-on road/rail corridor	<ul style="list-style-type: none"> <li>6mm (minimum) laminated glazing</li> <li>Fixed, casement or awning windows with seals</li> <li>No external doors</li> <li>Closed eaves</li> <li>No vents to outside walls/eaves</li> <li>Mechanical ventilation/air-conditioning<sup>1</sup></li> </ul>
	Opposite Side of House to Road/Rail	<ul style="list-style-type: none"> <li>No Requirements</li> </ul>
Living and Works Areas <sup>2</sup>	Facing or Side-on road/rail corridor	<ul style="list-style-type: none"> <li>6mm (minimum) laminated glazing</li> <li>Fixed, casement or awning windows with seals</li> <li>35mm (minimum) solid core external doors with acoustic seals<sup>3</sup></li> <li>Sliding doors must be fitted with acoustic seals</li> <li>Closed eaves</li> <li>No vents to outside walls/eaves</li> <li>Mechanical ventilation/air-conditioning<sup>1</sup></li> </ul>
	Opposite Side of House to Road/Rail	<ul style="list-style-type: none"> <li>No Requirements</li> </ul>
Other	Any	<ul style="list-style-type: none"> <li>Double brick cavity construction</li> <li>Slab on ground</li> <li>10mm plasterboard ceiling with minimum R2.5 insulation between ceiling joists.</li> </ul>
<b>OUTDOOR</b>		
Outdoor Living Area	Facing corridor	<ul style="list-style-type: none"> <li>No Requirements</li> </ul>
	Side-on to corridor	<ul style="list-style-type: none"> <li>No Requirements</li> </ul>
	Away from corridor	<ul style="list-style-type: none"> <li>No Requirements</li> </ul>

1. See section on Mechanical ventilation/air-conditioning below for further details and requirements

2. These deemed-to-comply guidelines adopt the definitions of indoor spaces used in AS 2107-2000. A comparable description for bedrooms, living and work areas is that defined by the Building Guide of Australia as a "habitable room". The Building Guide of Australia may be referenced if greater clarity is needed. A living or work area can be taken to mean any "habitable room" other than a bedroom. Note that there are no noise insulation requirements for utility areas such as bathrooms. The Building Guide of Australia describes these utility spaces as "non-habitable rooms"

3. Glazing panels are acceptable in external doors facing the transport corridor. However these must meet the minimum glazing requirements.

**Mechanical ventilation/airconditioning**

Where outdoor noise levels are above the "target", mechanical ventilation or airconditioning is required to ensure that windows can remain closed in order to achieve the indoor noise standards.

In implementing ventilation, the following need to be observed:

- Evaporative airconditioning systems will meet the requirements for Packages A and B provided attenuated air vents are provided in the ceiling. Without such vents, these systems require windows to remain open;
- Refrigerative airconditioning systems need to be designed to achieve fresh air ventilation requirements;
- air inlets need to be positioned facing away from the transport corridor where practicable; and
- ductwork needs to be provided with adequate silencing to prevent noise intrusion.