

# Noise & Acoustics

## Introduction

Noise is an important factor in occupant comfort. Noise can be from external sources such as traffic on busy roads, or from internal sources such as adjacent parts of the building.

Noise impacts can be reduced through the design. For example by positioning bedrooms away from busy roads where possible and providing insulation and finishes that reduce the transfer of sound through the building.

Noise management works such as acoustic insulation and glazing can also help with temperature regulation, energy efficiency and operational costs.

## Regulatory considerations

Managing noise impacts may be required as part of the approvals process in line with *National Construction Code* (NCC) and *Ministerial Building Standards* (MBS).

The Noise and Emissions Overlay in the *South Australian Planning and Design Code* addresses noise and emissions impacts on sensitive land uses, like housing near noise sources (e.g. commercial, industrial and transport zones).

Early engagement with Council will assist with determining these requirements.

## Internal Noise Transmission

Internal noise transfer between different parts of a building can include transmission through:

- Floors between residential to ground floor commercial spaces
- Floors between upper floor residential spaces
- Walls between adjacent residential units
- Internal walls to public corridors / service areas / lifts and the like.

For adaptive reuse projects the *Ministerial Building Standards* specify acoustic separation requirements for internal walls, floors and ceilings. Meeting these standards may require specific construction details, installation of acoustic insulation or use of other suitable materials to reduce the level of noise transmission between spaces. An Acoustic Engineer can assist with solutions to these requirements.



## Checklist & Key Considerations

- Have you sought advice from a Building Certifier and/or Acoustic Engineer?
- What are the external factors like nearby roads, public spaces, or noise generating activities?
- Will there be multiple residences requiring acoustic separation between units?
- Are there non-residential spaces in the building that will require acoustic separation?
- Does the building's heritage status require expert advice on integrating acoustic upgrade works?
- Have you contacted City of Adelaide regarding eligibility for the Noise Management Incentive Scheme?



### External Noise

External noise is transferred to the interior of buildings through external parts of the building such as walls, windows, doors and roofs. Some local areas may have high baseline noise levels, which require special consideration.

Sources of external noise can include:

- Traffic such as cars, buses, trains and trams
- Aircraft, particularly in the Adelaide Airport flight path zone
- Street activity and events
- Construction and road works
- Nightlife
- Mechanical systems (A/C condenser units)
- Outdoor spaces such as proximate courtyards, balconies, terraces and shared communal space.

In relation to adaptive reuse projects, control of external noise may be required but is dependent of the extent of work to the facade of the building and the building location. The Building Certifier can assist with understanding the relevant codes and standards and an Acoustic Engineer can assist with developing solutions where required.

### Incentives

The City of Adelaide offers assistance to eligible residents to help manage the impacts of noise affecting the liveability of city residences through the Noise Management Incentives Scheme.

Early engagement with Council will assist with determining your project's eligibility and funding available.

Find out more information here:

[Noise Management Incentive Scheme](#)

### Resources

[Noise in the city | City of Adelaide](#)

[Noise reduction resources | City of Adelaide](#)

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