# Slower Street Design

**Thoughtful street design interventions and traffic calming can create safer streets.**

## What's it about?

**Speed is one of the major factors contributing to accidents on Australian roads, especially for vulnerable users like pedestrians and cyclists. The relationship between speed and road traffic accidents is well established. In fact the risk of pedestrian death rises exponentially with collision speeds beyond 30 km/h [1].**

Creating safer streets is essential for improving road safety. Slower traffic reduces accident risk and accident severity, but slower traffic also creates safer pedestrian environments and conditions for vulnerable road users.

Beyond speed limits, there are a number of safer street design tactics that create the visual and physical cues to slow traffic, creating a safer environment for pedestrians and vulnerable road users.

Through thoughtful design interventions, such as speed humps, tree planting, varied pavement textures, and chicanes, streets can be transformed into spaces that encourage slower, safer driving.

The 100 to Zero Project is supported by the National Road Safety Strategy's National Road Safety Action Grants Program.

# Watch Videos

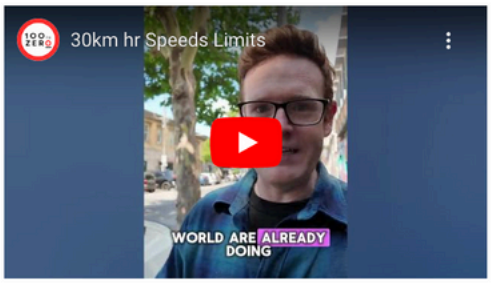
## Explore road safety topics in 100 seconds or less.


### Roundabouts!

Everything we love about roundabouts and why.


### Intersection Design Guide

What we can learn about intersection safety from this Melbourne Example




### 30km / hr Speed limits

Why some Councils are implementing them, and the unexpected benefits.

# Benefits

## Benefits of slower, safer street design

### Reduction in Accidents and Accident Severity

Lower speed limits in residential streets are linked to reductions in injury rates from road crashes in Australia. In fact, 30 km/h speed limits on local residential streets have the potential to reduce the Australian national road toll by 13% or $3.5 Billion every year [4]. As well as a lower risk of fatality or injury at lower speeds, the likelihood of avoiding any collision is much greater at lower speeds due to the much lower stopping distances at 30 km/h compared with 50 km/h [5].

### Increased levels of Physical Activity

Safer streets promote increased walk. Studies by the Heart Foundation have shown that speed reduction improves pedestrians' perception of safety which then increases their likelihood of walking and involvement in regular physical activity [3].

### Strengthened local economies

Reducing speed around shopping precincts and mainstreets can make them more attractive to pedestrians, cyclists and public transport users and to add value to the local economy, whereas vehicle speeds can be a threat to local businesses [3]. Lowering speed limits and designing traffic calming in busy pedestrian areas will make these streets more walking and cycling friendly.

### Independent Mobility, especially children

Safer streets make it easier and safer for children to walk around the neighbourhood and to school, including the ability to walk without the accompaniment of an adult [2].

### Improved Social Connectedness

Speed can be a significant factor in preventing social connections at a street level [2]. Well-designed streets connect people with their communities, providing opportunities to meet people, see friends, and feel socially connected. People who live on streets with faster traffic are around half as likely to take part in street based activities that are fundamental to good neighbourhood environments [6].

### Places for local expression and identity

As sites for daily activities and rituals, streets hold memories of places and events. Streets can represent the character of a specific place and have personal meaning to people and reflect the local identity and character of a place [5].

# Slower Street Design Examples

**There are a range of design interventions which assist in creating calmer, slower vehicle traffic and safer streets for pedestrians, cyclists and vulnerable road users.**

## Vertical Deflection

**A vertical deflection changes the height of the roadway to force or encourage motorist to slow down to maintain an acceptable speed for the road.**

### Speed Humps

Strategically placed speed humps reduce vehicle speed, making it safer for pedestrians and cyclists.

### Road Cushions

Speed cushions are speed humps that include wheel cutouts to allow large vehicles to pass unaffected, while reducing passenger car speeds, often used in industrial areas.

### Raised Pedestrian Crossings

Raised Pedestrian Crossings, sometimes called 'wombat crossings' are raised pedestrian crossings that give priority to pedestrians, while the raised road hump signals to traffic to slow down.

## Horizontal Deflection

**A horiozontal deflection makes the vehicle swerve slightly. By preventing the ability to drive in a straight line, motorists are forced to slow down.**

### Roundabouts

Perhaps one of the most common traffic calming devices, roundabouts slow traffic entering an intersection by channelising traffic in one direction around a circular central island.

### Chicanes

Chicanes are curved or alternating curb extensions or small road bends that slow traffic, especially on narrow streets. Chicanes help calm traffic by narrowing (and curving( the carriageway). They are often accompanied by planting.


### Slow Points

Slow points narrow the road carriageway with a series of kerb extensions on alternating or opposite sides of a roadway to reduce vehicle speeds. Slow points can also provide opportunities for planting and street trees.


### Pedestrian Refuges

Mid-street islands offer safe spots for pedestrians to wait, particularly on wide or busy roads. The island narrows the lane and diverts the angle of traffic flow around it.

### Median Treatments

Median treatmens are islands positioned at the centreline (median) of a street. Like pedestrian refuges, they narrow the lanes and divert the angle of traffic flow. They are often narrower than a pedestrian refuge and may contain planting.

### Narrowing Lane Widths

Narrow lanes encourage slower driving speeds. It is generally done by extending the kerbs inwards or via other forms of kerb modifications but it can also be achieved through the introduction of on-street parking.

# Signage, Paving and Planting

**Signage and linemarking, textured paving and planting all provide visual cues to help slow traffic.**


### Signange

Signage is the most common form of traffic calming. It can be used to regulate traffic movements or calm traffic. This may include speed limits, permitted uses, stop signs and denoting school zones.

### Road Markings

High-visibility signage and markings communicate speed limits, pedestrian zones, school zones and other critical information. Road markings are commonly used to delineate bicycle lanes, bus lanes and other shared road uses.

### Textured Pavements

Pavement materials like cobblestones or rough textures encourage drivers to slow down and enhance pedestrian safety.

### Planting

Trees and greenery help narrow the visual field, naturally calming traffic and providing shade and aesthetic appeal.

## References


[1] Curtin - Monash Accident Research Centre, 'Fact Sheet 06 Improving Pedestrian Safety', 2010

[2 ] Kelly, J 'Social Cities' Grattan Institute, 2012

[3] Heart Foundation, 'Slow Motion: Why reducing speed will promote walking and cycling' November 2012

[4] Dool, et al 'Safe-Street Neighbourhoods: the role of lower speed limits' Journal of the Australian College of Road Safety – Volume 28 No. 3, 2017

[5] Austroads, 'Guide to Road Safety Part 3: Safe Speed', Publication no: AGRS03-24, July 2024

[6] Global Street Design Guide, 'Streets Shape People' Global Designing Cities Institute

[7] Austroads 'Guide to Traffic Management Part 8, Local Area Traffic Management', Second Edition May 2016


## Helpful Guides

Global Street Design Guide

**Austroads 'Guide to Traffic Management Part 8, Local Area Traffic Management'**

**Austroads, 'Guide to Road Safety Part 3: Safe Speed'**

**Victoria Walks**, Safer Speed Guide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