

# Our Places

## Citywide Speed Limit Review

The purpose of this workshop is to present Council Members with the investigation findings and citywide speed limit recommendations

City of Adelaide  
Citywide Speed Limit Review

Stantec  
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# Citywide Speed Limit Review

## Key Messages



Implementing **Safer Speed Limits** implementation is supported at a national level, state and within local policies, as well as through international research and best practice.

### **Benefits:**

- Assist in enhancing public safety and wellbeing for all road users and pedestrians.
- Enhance place value.
- Reduce noise and air pollution levels.
- Provide a better road environment for active transport.

### **Advocating the importance of safety to our Community,** provides:

- Opportunity to lead as a capital city.
- Applying a maximum speed limit of 30km/h across the City would significantly enhance safety and align with **Safe System approach**.
- Supported evidence based decisions with an 'Inform and educate' approach to community engagement to change speed limits and its benefits.
- Continuous feedback mechanisms while implementing the speed limit change.

**KEY QUESTION**

What are Council Members' views on implementing a citywide speed limit reduction?

**KEY QUESTION**

For the purpose of consistency, what are Council Members' views on reducing the number of different speeds across the city?

**KEY QUESTION**

Noting the significance of the Safe System approach and best practices, what are Council Members' views on 50km/h Park Lands roads and 30km/h or less for the majority of roads in the City?

**KEY QUESTION**

Noting the technical findings and safety related matters, what are Council Members' views on an 'inform and educate' engagement approach in line with many other Councils' approaches?

## **Council Resolution – 8 March 2022**

Council resolved to investigate the current speed limits to assess the requirement of reducing the speed to 40km/h or less (in alignment with speed zones that are already below 40 km/h) to help support businesses and residents for a safer urban environment.

**Note:** Whilst the resolution focused on road safety outcomes, reduced speed limits also bring a range of other benefits to health and livability.

## **Review and Research**

A citywide speed limit review has been undertaken by Stantec, including extensive research from around Australia and overseas.

## **Technical Findings Report**

A technical report ([Link 1](#)) detailing these findings has been developed by Stantec, including the following scope:

- data collection to assess existing conditions.
- assessment of the current operation of the road network.
- gap analysis of the current and desirable speed environments .
- future speed limit options to address current issues and risks identified.
- high level assessment of each option with consideration of compliance, treatment and infrastructure.

From the evidence, Stantec have provided three speed limit options.



# Citywide Speed Limit Review

## Safe Systems Approach

### What is the Safe System Approach?

The safe system approach acknowledges that:

- People make unpredictable mistakes that can lead to road crashes.
- The human body has a limited physical ability to tolerate crash forces before harm occurs.
- A shared responsibility exists amongst those who plan, design, build, manage and use roads and vehicles to prevent crashes resulting in serious injury or death.
- All parts of the system must be strengthened to multiply their effects; and if one part fails, road users are still protected.

The Safe System considers four (4) pillars:

1. Safer roads
2. Safer speeds
3. Safer road users
4. Safer vehicles

**Council has a responsibility to create safe speeds and safe facilities for all, including for people to walk/wheel and cycle.**



Source: Department of Infrastructure and Regional Development (2016).

## Wrangborg Curves: Generally accepted threshold speeds



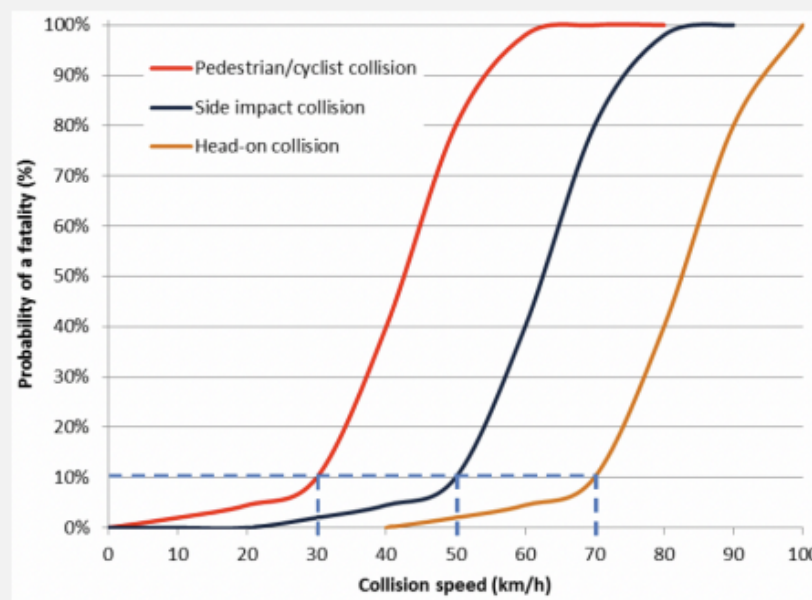
Relationships between collision speed and probability of a fatality for different crash configurations.

“According to these probability curves, there is a 10% chance of fatality outcome when vehicles impact at the following speeds:

30 km/h in pedestrian/cyclist crashes

50 km/h in side impact collisions

70 km/h in head-on collisions.” (Jurewicz et al. 2015)



Source: Jurewicz, Sobhani et al. (2015) and based on Wrangborg (2005)

While 30 km/h is higher than typical pedestrian or bicycle speed, most cyclists operate in speed environments well above 30 km/h, and pedestrians cross streets where that is the typical motor vehicle speed.

## Policy and Strategy Alignment

Relevant policies of the South Australian Government and City of Adelaide have informed this review and support adopting the **Safe System approach**.

They include:

- [South Australia's Road Safety Strategy to 2031](#)
- [South Australia's Road Safety Action Plan \(2023-2025\)](#)
- [Speed Limit Guideline for South Australia](#)
- City of Adelaide Strategic Plan 2024-2028
- City Plan 2036
- City of Adelaide Integrated Climate Strategy 2030
- [Austroads Guide to Traffic Management Part 4: Network Management](#)

One of our **Strategic Plan 2024-2028** long term aspirations is to make **Our Place**: interesting, purposeful and **safe**. Set target aligned to **SA Road Safety Strategy**.

Safer speed limits are key to the successful implementation of **The City Plan 2036** priority of transport diversity and walkable experiences.

**New zero ready city** is a set **Integrated Climate Strategy** goal priorities:

- to triple the number of city workers who cycle to work
- double the number of local residents who walk to work

People feeling unsafe around vehicle traffic at speed is a key barrier to active travel; safe system speeds are key to achieving the required mode shift and decarbonisation.

## Australian Implementation

Extensive research from around Australia shows the benefits of safer speed limits in urban areas.

State	Study scope	Findings	Reference
South Australia	introduction of the 50 km/hr default speed limit	<ul style="list-style-type: none"> <li>reduced speed (mean 3.62 km/hr) and injury crashes;</li> <li>23.4% reduction in casualty crashes;</li> <li>greatest reduction in fatal crashes (36.6%) (not statistically significant);</li> <li>smaller reductions on roads that remained at 60 km/hr (comparison roads).</li> </ul>	Woolley et al 2007
Victoria	Introduction of school zones (40 km/h or 60 km/h)	<ul style="list-style-type: none"> <li>17% reduction in crashes for people walking and cycling</li> <li>30% reduction in crashes involving children, and adolescents</li> </ul>	VicRoads 2008
Victoria	Introduction of the 50km/h default urban speed limit	<ul style="list-style-type: none"> <li>12% reduction in overall casualty crashes</li> <li>Reductions in fatal and serious injury crashes</li> </ul>	Hoareau et al 2006
Victoria	Evaluating 40km/h strip shopping zones	<ul style="list-style-type: none"> <li>8% reduction in casualty crashes</li> <li>17% reduction in crashes involving pedestrians</li> </ul>	Scully et al 2008
New South Wales	Introduction of the 50km/h default speed limit in urban areas	<ul style="list-style-type: none"> <li>45% reduction in fatal crashes</li> <li>22% reduction in all casualty crashes</li> <li>51% reduction in crashes involving a pedestrian</li> <li>50% reduction in crashes involving older drivers</li> </ul>	Roads and Traffic Authority 2000



## **Australian Implementation**

Several 30km/h zones have been implemented across Australia in recent years there is not enough publicly available data on the change to the crash record.

- NSW**
- Northern Beaches Council implemented 30km/h zones in Manly in 2020
  - Wollongong City Council has implemented multiple 30 km/h projects, starting with the dining district of Crown Street and Helensburgh CBD in 2022
- QLD**
- City of Gold Coast implemented its first 30 km/h speed limit on Hedges Avenue, Mermaid Beach as part of overall improvements for people walking and riding bikes.
- VIC**
- City of Yarra: parts of Fitzroy and Collingwood have had 30km/h speed limits since 2018 and recently expanded the 30km/h zone to cover all of Fitzroy and Collingwood.
  - Warrnambool City Council implemented 30 km/h on Liebig Street as part of a broader city centre transformation
  - City of Melbourne has a 30km/h speed limit on Swanston Street, which is also restricted to 'permitted vehicles only'
  - City of Mildura has implemented a 30 km/h zone in parts of the Mildura CBD. Following a 12-month trial, the council voted to keep the 30 km/h speed zone in place.
- WA**
- Fremantle has a 30 km/h speed limit on South Terrace (along the 'Cappuccino Strip')
  - The Western Australia Government has also implemented several 30 km/h speed limits as part of its Safe Active Streets program, which also includes measures to improve safety and comfort for people riding bikes.

## SA Policy and Strategy Alignment

The draft South Australia's Road Safety Strategy sets out the following ambitious 10-year targets (by 2031) for South Australian roads to support a long-term vision of zero lives lost on our roads by 2050:

- At least 50% reduction in lives lost
- At least 30% reduction in serious injuries

Despite road safety messages and actions between 2011 and 2021, there has been a 10-year trend with no reduction in serious injuries, and an increase in serious injuries in the 5-year period in metropolitan areas.

South Australian is not meeting its targets to have zero lives lost on our roads by 2050.

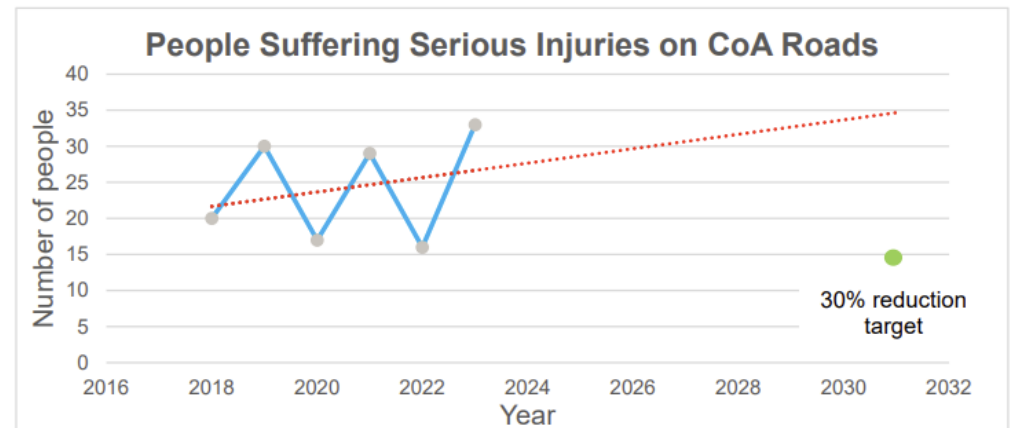
## City of Adelaide - Crash History

The City of Adelaide has recorded 2,400 crashes in the past 5 years with:

- 4 fatal crashes
- 211 crashes resulting in serious injury
- 658 crashes resulting in minor injury

The remaining crashes are property damage crashes.

This equates to someone being injured nearly every second day in the City of Adelaide.



## Crash Analysis (5-year period 2019 / 2023)

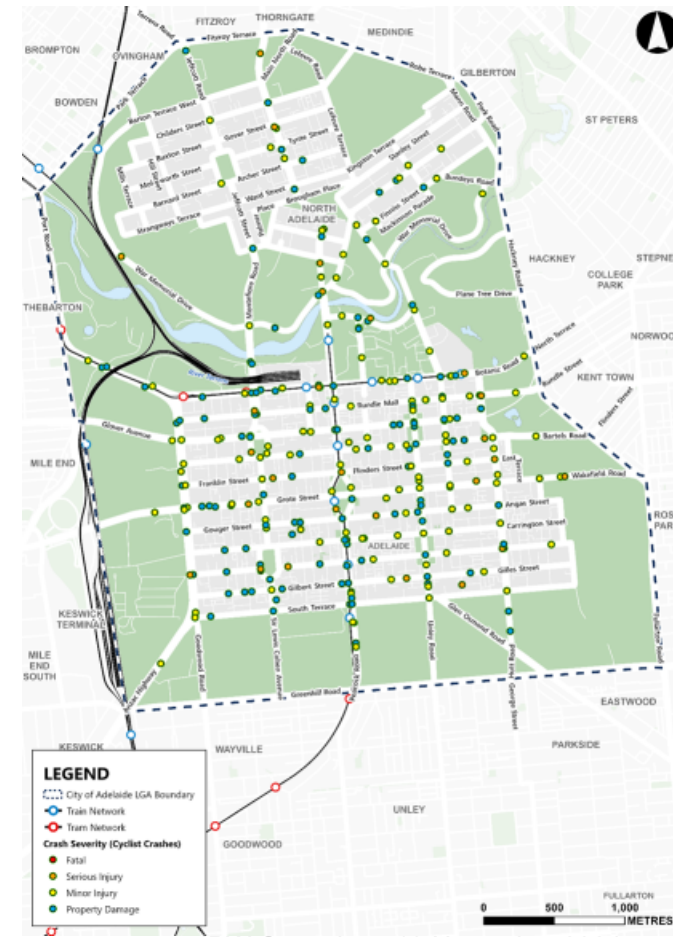
All crashes



Crashes involving a pedestrian

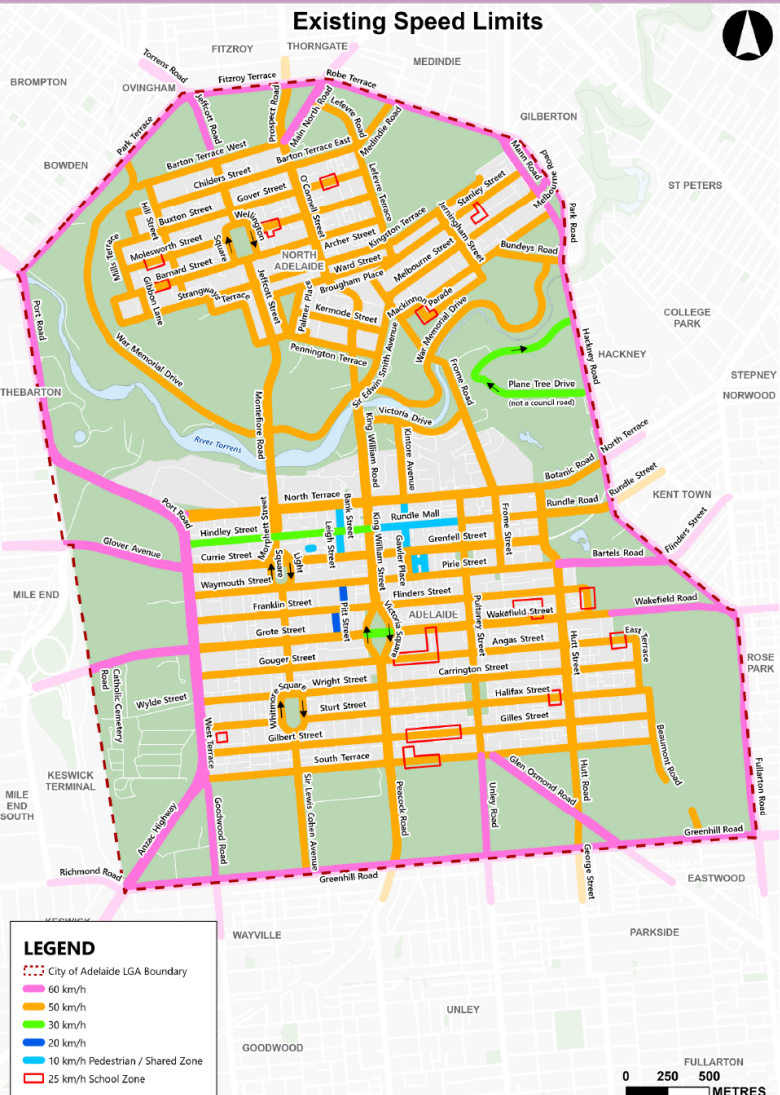


Crashes involving a cyclist



# Citywide Speed Limit Review

## Technical Findings – Existing Speed limits



The City of Adelaide has a number of different speed limits in operation:

- A **60km/h** speed limit applies to the roads around the council border and to most of the roads which travel through the Adelaide Park Lands in Adelaide.
- A **50km/h** speed limit applies to most roads.
- A **30km/h** speed limit applies to three roads. These are Plane Tree Drive, Hindley Street and a small section of Grote Street in the middle of Victoria Square.
- A **25km/h** speed limit applies adjacent to several school zones.
- A **10km/h** speed limit applies to Rundle Mall, Bank Street and a section of Gawler Place.

Most roads in the city exceed the Safe System Speed for pedestrian and cyclist safety.



# Citywide Speed Limit Review

## Technical Findings – Observed Speeds



- Speed surveys show that the majority of 51 surveyed locations operate at speeds less than the posted speed limit.
- Average 85<sup>th</sup> percentile speeds at 16 out of 26 locations are already below 40km/h.



# Citywide Speed Limit Review

## Technical Findings – Observed Speeds



- Average speeds along the routes were already below 30km/h in the AM and PM peak on the survey dates.
- The highest 85<sup>th</sup> percentile speed in the AM peak was 36.3km/h and the PM peak was 30.1km/h.

# Citywide Speed Limit Review

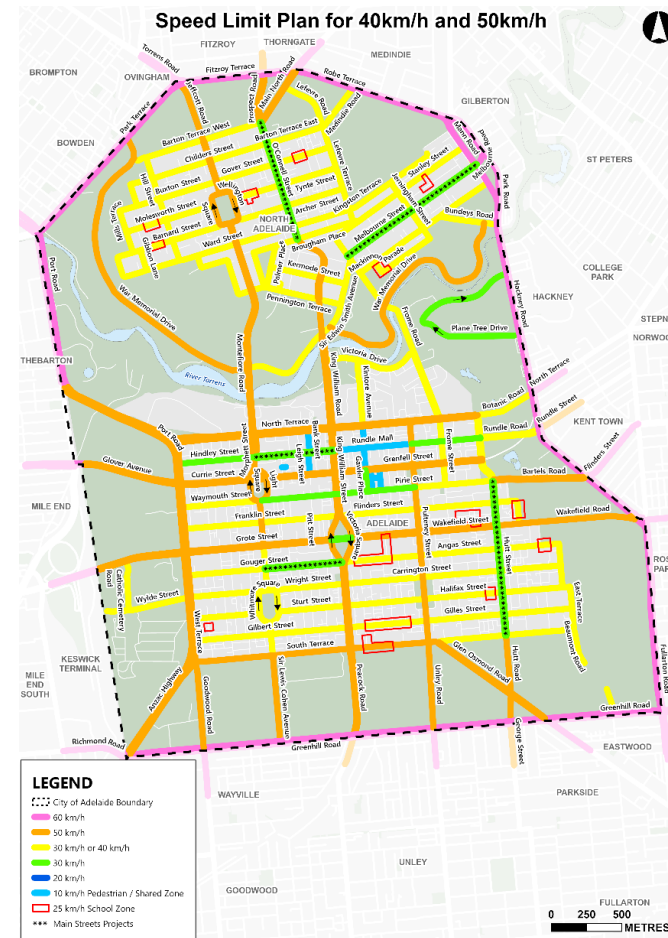
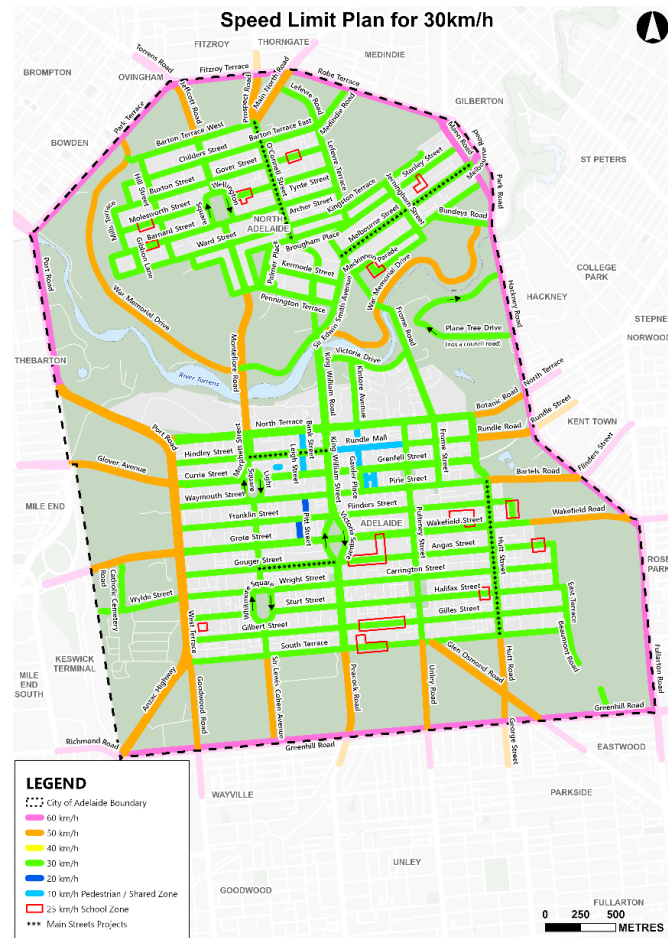
## Proposed Options



### Option 1 - 30km/h speed limit plan

### Option 2 - 40km/h speed limit plan

### Option 3 - Mixed speed limit



### 30 km/h speed limit

#### Key Summary

- Aligns the most with the Safe System approach.
- Council able to best ensure a safe street environment.
- Supports pedestrians and cyclists to occupy all areas of the city.

#### Benefits

Provides a calmer environment:

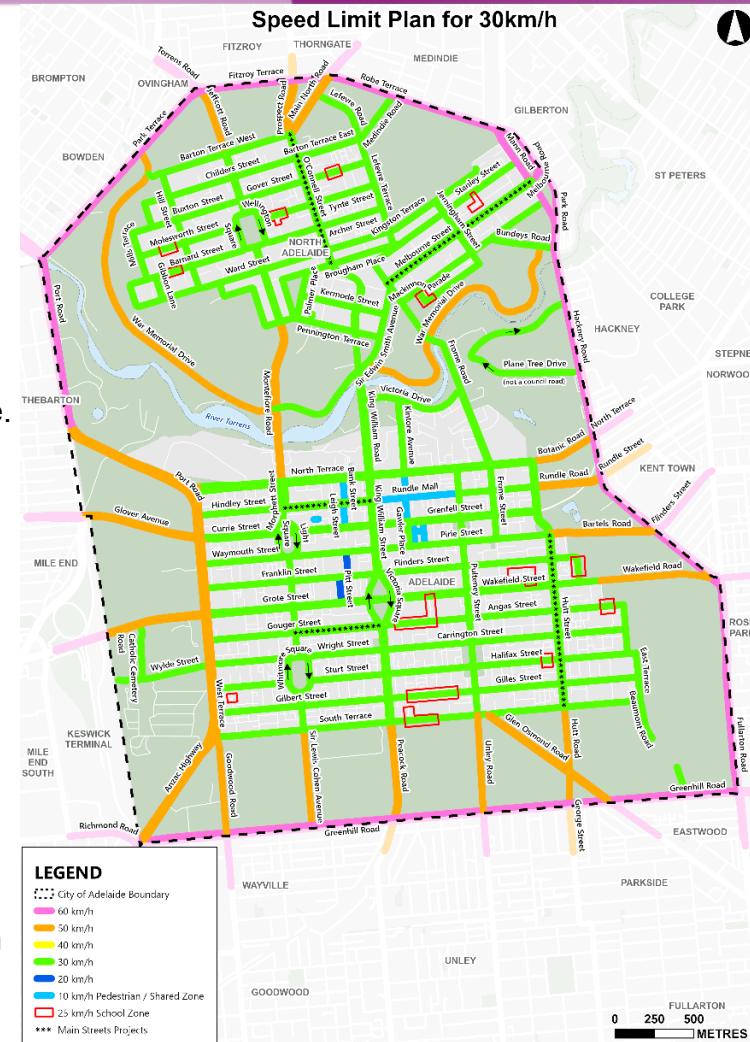
- Reduces noise on local streets, improve air quality and encourage more outdoor use.
- Enables safer streets where people walking/wheeling and cycling and vehicles regularly interact. Provides children increased options to play outdoors.
- Increases social connectivity and access to goods and services.
- Provides more time and safer options for people to cross the street.

#### Perceived Disadvantages

- Frustrated drivers not visually seeing the street is shared with differ users to justify the speed reduction.
- Increases in travel time.

#### Evidence

- Reduces the risk of a driver killing a person walking from 90% at 50km/h to less than 10% at 30km/h.
- Improves safety for all road users. Reduce the severity and likelihood of crashes.



### 40 km/h speed limit

#### Key Summary

- Above the Safe System speed for interactions between passenger vehicles and people walking, wheeling and cycling and with people on footpaths in proximity to vehicles.

#### Benefits

Provides a calmer environment:

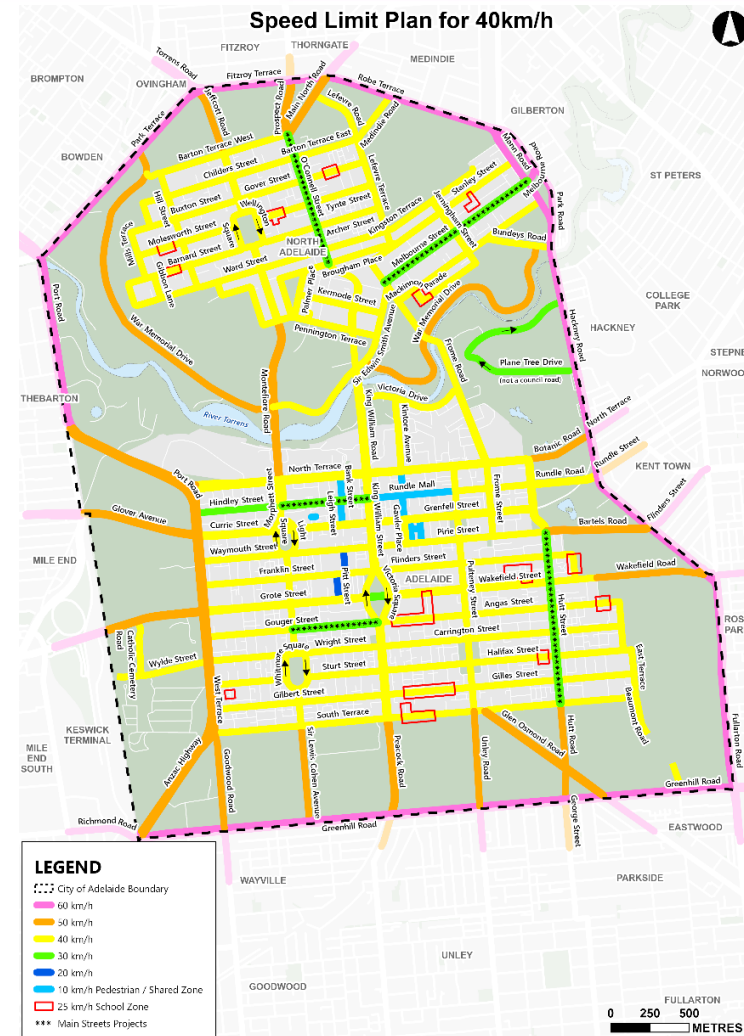
- Enables safer streets where people walking/wheeling and cycling and vehicles regularly interact.
- Provides more time and safer options for people to cross the street.
- Improves safety:
  - Expected to result in fewer crashes than a 50 km/h or more speed limit.
  - Provides drivers with more time to react in a crash.

#### Perceived Disadvantages

- Frustrated drivers not visually seeing the street with differ users to justify the speed reduction.
- Increases in travel time.

#### Evidence

- Reduces the risk of a driver killing a person walking from 90% at 50km/h to less than 40% at 40km/h.
- Experience fewer crashes than a 50 km/h or more speed limit.
- Provides drivers with more time to react in a crash.





## Mixed speed limit

### Key Summary

- Above the Safe System speed for interactions between passenger vehicles and people walking, wheeling and cycling and with people on footpaths in proximity to vehicles.
- Distinguishes between local streets and streets with higher vehicle traffic.

### Benefits

Provides a calmer environment on some streets which:

- Enables safer streets where people walking/wheeling and cycling and vehicles regularly interact.
- Providing more time and safer options for people to cross the street.
- Improving safety:
  - Expected to result in fewer crashes than a 50 km/h or more speed limit.
  - Provides drivers with more time to react in a crash.

### Perceived Disadvantages

- Does not align with Safe System principles or the City of Adelaide’s own objectives.
- Will be the most expensive option due to higher complexity of speed limits.
- Creates a less cohesive and intuitive speed environment and may be difficult for motorists to understand.

### Evidence

- Maintaining a significant number of 50km/h streets, will limit the ability to improve road safety and reduce the severity when crashes occur





# Strategic Alignment - Options

Strategic Alignment	Issues and Outcomes	30km/h	40km/h	Mixed Speed
<p><b>Strategic Plan</b></p> <p><b>Integrated Climate Strategy</b></p> <p><b>Urban Greening Strategy (in development)</b></p>	<p><b>Increase greening</b></p> <p>Higher speed requires longer sight distances reducing opportunities for planting trees.</p>			
<p><b>Strategic Plan</b></p> <p><b>Integrated Climate Strategy</b></p> <p><b>Disability Access and Inclusion Plan 2024-2028</b></p>	<p><b>Safe, inclusive and healthy places for our community</b></p> <ul style="list-style-type: none"> <li>• Streets and paths need to be comfortable for all ages and abilities.</li> <li>• Higher speed streets form barriers, particularly for older adults, children, and people with disabilities.</li> </ul>			
<p><b>Strategic Plan</b></p> <p><b>Wellbeing Plan</b></p>	<p><b>Public health and wellbeing, healthy places</b></p> <p>Road traffic is a significant issue for public health. Higher speeds (and volume) traffic causes:</p> <ul style="list-style-type: none"> <li>• Increased noise.</li> <li>• A barrier to more people, including children, to cycle, walk and wheel.</li> </ul>			

# Next Steps - Engagement Options

## Option 1: 'Inform and Educate'

1. Consult with the Department for Infrastructure and Transport (DIT) on the options presented and present back to Council for consideration.
2. Council endorses an option for implementation.
3. Council proceeds with an inform only approach to the Community, advocating the rationale for the changed with a focus on communicating;
  - Evidence based decisions.
  - Strategic alignment.
  - The importance of safety.
  - Legislative roles and requirements.

## Option 2: Consult

1. Consult with the Department for Infrastructure and Transport (DIT) and seek feedback from the Community (community engagement) on the preferred option/s.
2. Council receives feedback from DIT and the Community and endorses an option for implementation.

**KEY QUESTION**

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