Gold Coast Road Safety Plan 2015-2020

Safer transport for a safer community

April 2015
Acknowledgments

The Gold Coast Road Safety Plan is a collaborative initiative. The City of Gold Coast would like to acknowledge the contributions of our key partners, the Queensland Department of Transport and Main Roads, the Queensland Police Service, the Royal Automobile Club of Queensland and the Centre for Accident Research and Road Safety - Queensland.

Disclaimer

City of Gold Coast notes that the information contained in this document is based on available information at the time of writing, some of which has been provided by third parties. Unless otherwise stated, all Queensland and Gold Coast crash data statistics presented in this plan are based on the Queensland Road Crash Database¹, using a 5 year reporting period between 2008 and 2012. While City of Gold Coast has exercised reasonable care in preparing this document, all figures and diagrams are indicative only and should be referred to as such.
Mayor’s message

As Mayor, I am committed to the safety of residents and visitors as they move around our city. I want our community to travel with confidence that there is a safe local transport system to enable access to all parts of our city.

The unique geography and strong population growth of our city presents a number of road safety challenges, which have sadly contributed to two people losing their lives while using the Gold Coast transport system on average every month for the past decade.

I am concerned that around one in three fatal or serious incidents involve pedestrians, cyclists or motorcyclists. Similarly, I am concerned that our younger population is continually over-represented in serious incidents in the city.

This plan enables the City of Gold Coast to work collaboratively with key stakeholders and the community to play our part in improving the safety of the city’s transport system.

More specifically for the City, the plan provides a local framework for us to ensure that we are improving the parts of the transport system that are our responsibility. This includes:

- increasing our community’s awareness, particularly our younger population, of contemporary road safety issues
- implementing local road network measures, such as speed awareness devices, school zone traffic management and improving areas with significant multi-modal transport demands
- ensuring that there is accountability between partners in addressing the City’s road safety challenges.

I look forward to working with stakeholders and the broader community to ensure that the City’s first Road Safety Plan contributes to a better transport future for the Gold Coast.

TOM TATE
MAYOR
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List of acronyms

City          City of Gold Coast
CARRS-Q      Centre for Accident Research and Road Safety - Queensland
COTA         Council on the Ageing
DCS          Department of Community Safety
EQ           Education Queensland
GCT          Gold Coast Tourism
PCoA         Pedestrian Council of Australia
PCYC         Police Citizens Youth Club
QPS          Queensland Police Service
QR           Queensland Rail
RACQ         Royal Automobile Club of Queensland
TMR          Department of Transport and Main Roads
Since 2008, the Gold Coast transport system has recorded an average of two fatal, 55 serious injury hospitalisations and more than 65 medical treatment incidents every month. Whilst recent positive road safety trends are emerging on a national scale, more can be done to improve the safety of the transport system, and those using the system.

The Gold Coast Road Safety Plan provides a local framework to enable the City of Gold Coast (the City), key stakeholders and the community, to play our part in improving road safety.

Underpinning our endeavours is our vision to reduce crashes, save lives and prevent serious trauma on the Gold Coast transport network. This is the City’s commitment, presented in a five year plan to reduce the annual numbers of both deaths and serious injuries on our roads by at least 30 per cent.

The plan addresses our key road safety challenges identified through a detailed crash analysis. This analysis found that advances have been made in reducing Gold Coast road trauma (serious injury and death), yet our transport injury and death toll remains at an unacceptable level.

Our proposed road safety investment has been set out in four themes and aspirations relating to our local road safety context; our people, our transport system, our places, and our shared responsibility.

The actions identified throughout the plan communicate contemporary road safety evidence, planned initiatives and emerging issues for further consideration throughout the life of the plan. Our actions have been developed cooperatively by the local and state road authorities, law enforcement, education and industry sector and community advocates. This collective approach is reflected in our actions and shares the road safety responsibility with everyone.
Our context

World famous for its lifestyle attractions, the Gold Coast is becoming one of the world’s most liveable cities. The city offers an enviable year-round climate and an amazing natural environment boasting world-renowned beaches, waterways and a majestic hinterland.

With a growing resident population of 537,000 and more than 12 million visitors per year, there is inevitable pressure on our transport system. Traffic congestion in urban areas (and the consequent economic cost, estimated to be $20.4 billion by 2020 to the Australian economy) is a central consideration for the ongoing development of safe, multi-modal transport systems. Contemporary means to mobilise and connect people include providing safe and efficient public and active transport options, which can address congestion and improve access to jobs and opportunity (productivity). This approach can also reduce greenhouse gas emissions (sustainability) and enable affordable access to education, health and recreational facilities (liveability).

The development of the Gold Coast Road Safety Plan 2015-2020 has enabled the City to consolidate existing actions, integrate complementary use of resources and identify innovative approaches to deliver a coordinated road safety effort. This plan presents our road safety vision and actions to achieve a reduction in road safety trauma, focusing on shared and individual responsibilities for all road users, including pedestrians, cyclists, public transport passengers, motorcyclists and motorists, to ensure safer people, safer places and safer transport systems.

The Gold Coast Road Safety Plan has been developed using the Safe System approach, detailing the City’s collaborative efforts as it designs and operates the safest and most efficient transport system possible for our residents and visitors.
Each year worldwide, nearly 1.3 million people die as a result of a road traffic collision. That's more than 3000 fatalities each day and more than half of these people are not travelling in a car\(^4\). An additional 20 to 50 million people each year sustain non-fatal injuries from a collision, and these injuries are a significant cause of disability. Worldwide, road trauma is the leading cause of death for young people aged 15-29 and the eighth leading cause of death globally.

Road traffic injuries can be prevented. International frameworks recommend that an adequately funded lead agency and a national plan or strategy with measureable targets are crucial components of a sustainable response to road safety.

A United Nations resolution co-sponsored by Australia, invited member states to set their own national casualty reduction targets and road safety activities throughout the Decade of Action for Road Safety 2011-2020. International efforts aim to stabilise and then reduce the forecast level of road traffic fatalities around the world by 2020. The TOWARDS ZERO: ambitious road safety targets and the Safe System approach report, provides an economic case for road safety investment whilst encouraging governments to raise the performance threshold by developing more systematic approaches to road safety\(^5\). Collective efforts will reap greater road safety outcomes.
National

Since record keeping commenced in 1925, there have been over 180,000 fatalities on Australia’s roads. The social impacts of serious road trauma affect more than casualties, they extend into our communities as an array of physical and emotional wellbeing issues as well as financial hardship.

Australian road trauma levels have declined substantially over the last four decades, despite considerable population growth and a threefold increase in registered motor vehicles. During this period, the number of road fatalities per year has fallen from around 3,800 fatalities in 1970 to less than 1155 in 2014.

The Australian Government is striving to reduce serious road injury and death by 30 per cent and provides an agreed set of national road safety goals, objectives and actions at the federal, state and territory levels in the National Road Safety Strategy 2011-2020. The National Road Safety Action Plan 2015-2017 focuses national efforts on activities that will deliver or support significant long-term improvements to the safety of Australia’s road transport system, especially through strategic investment in infrastructure safety, vehicle safety and capacity building work. Additionally, the Australian Government promotes substantial improvements in road safety to support the sustainability of cities and increase the number of Australians undertaking active travel modes. Road safety is addressed in a number of national urban design policies, programs and reports.

State

The Queensland Department of Transport and Main Roads (TMR) released the Queensland Road Safety Action Plan (QRSAP) 2013–2015 detailing efforts to make Queensland’s roads safer, reduce the number of crashes and improve safety on our roads over a two year timeframe. The actions contained in the plan are aimed at contributing to the national target to reduce the annual number of fatalities and serious injuries by at least 30 per cent by 2020, and fulfilling Queensland’s commitment to the global Decade of Action for Road Safety. The plan seeks to strengthen and refocus the perception of road safety in the community through building strong community partnerships, aiming to achieve safe road users travelling at safe speeds in safe vehicles on safe roads and roadsides. A comprehensive set of measures aiming to reduce road trauma in the short term and build the foundation for long term improvements are outlined.

It is envisaged that an updated QRSAP will be released later in 2015, incorporating both state-wide and community-based actions.

Other state initiatives such as the Queensland Cycle Strategy 2011-2021 and the Easy Steps resource package developed by TMR enable the state and local authorities to implement safe transport solutions.
Local

Gold Coast 2020

Our Corporate Plan guides the Gold Coast’s future to make our city more liveable and prosperous, and to strengthen our community. Our City vision, ‘Inspired by lifestyle. Driven by opportunity’ informs our City strategies and plans and reflects our commitment to transformational change, making the most of current and emerging opportunities and ensuring the city remains a great place to live and work. Our vision is underpinned by three themes: place, prosperity and people. Addressing the issue of road safety and serious transport injury in our community is integral to achieving the City vision, and is presented in Figure 1.

This Road Safety Plan proposes a number of environmental, behavioural and regulatory actions aiming to create an environment that is both physically and socially supportive of the needs of people when they walk, cycle, motorcycle, drive or use public transport.

Gold Coast City Transport Strategy 2031

The Gold Coast relies on a transport system that helps build our economy, provides everyone access to the city’s opportunities and helps sustain our enviable environment. Our City’s transport vision is that in 2031 the Gold Coast:

- enjoys smart growth – the majority of new development is based on compact, mixed use centres that are focused on high-quality public transport
- is a connected city – people and places are connected by an integrated, safe and efficient transport network
- makes sustainable travel choices – a significant proportion of Gold Coast residents and visitors choose to walk, cycle and take public transport as part of their daily travel.

To achieve our vision, the Gold Coast Transport Strategy 2031 promotes a balanced transport system with the right mix of car use and public transport, walking and cycling. This balance is achieved using a new approach – prioritising people, not cars. Likewise, our Road Safety Plan is underpinned by prioritising our people, our places and our transport system, representing the Safe Systems approach to road safety.

Figure 2: How the Gold Coast Road Safety Plan fits within the City’s planning framework
Our opportunity
Our vision
The Gold Coast Road Safety Plan 2015-2020 will enable the City, its partners and stakeholders to implement sustainable and effective solutions that will reduce crashes, save lives, and prevent serious trauma on the Gold Coast transport network.

Our targets
The Road Safety Plan has set the following five-year targets:

- to reduce the annual number of fatalities on the Gold Coast transport system by 30 per cent
- to reduce serious hospitalisation injuries on the Gold Coast transport system by at least 30 per cent.

The 30 per cent target is consistent with current national and state road safety targets and is based on a three year rolling average between 2010 and 2020 (Figure 3).

Figure 3: Gold Coast annual transport injury trend and Road Safety Plan target
Our role

The City is responsible for planning and delivering local infrastructure, facilities and services to provide safe, connected and accessible places to live, work and play for residents and visitors. Providing an efficient, effective and safe transport system comprising people (users) and infrastructure is an integral component of our responsibility. The City has a long history of collaborative investment with the education and community sector, advocacy groups, and the state and federal governments, to provide a safe and functional transport system for all users. The focus of this plan is for the City to tailor road safety investment to local road safety issues. It will also assist us to be proactive, identifying high risk areas for action in advance of incidents occurring.

The City operates the transport system in collaboration and partnership with TMR. We also have a broader responsibility to ensure the safety of Gold Coast residents and visitors. The City currently prioritises safety across our transport system in the following ways.

- Providing safe travel networks through best practice planning, construction and operation, including:
  - roads
  - intersections
  - on-road cycle infrastructure
  - off-road cycle ways and pathways.
- Advocating community road safety issues and collaborating with government authorities, transport professionals and academics to ensure best practice and innovative safety efforts.
- Modifying user behaviour through the delivery of road safety programs and messages to the community and education sector, and partnering with law enforcement to assist targeted policing to improve road safety.

Our road safety challenge

The Gold Coast is a unique city and this is reflected in our road safety characteristics. Our city’s resident demographics and status as a major tourist and entertainment destination present specific road safety challenges.

Advances have been made in reducing Gold Coast road trauma (serious injury and death), with 23 per cent fewer fatalities recorded in the 12 years from 2002-05 to 2010-13 (Figure 4).

Despite this progress, the transport injury and death toll remains at an unacceptably high level.

Every month, on average since 2003, the Gold Coast transport system records:

- two fatalities
- 55 serious injury hospitalisations
- more than 65 medical treatments.

Gold Coast transport crashes and casualties between 2007 and 2010 have been estimated at a total social cost of $2.2 billion or approximately $558 million per year \(^7, 10\).

Figure 4: Gold Coast transport injury trend (2002-13)
Demographic profile

Younger and older drivers are at greatest risk on our roads. Our youth are inexperienced while our seniors are physically fragile, which tends to result in more serious crash impacts.

Within our population, those aged 17-24 are involved in 27 per cent of serious crashes while only accounting for 11 per cent of the city’s population (Figure 5).

Several factors contribute to this statistic among younger people including increased risk taking, under-developed skills, longer distances travelled and an increased propensity to use alcohol and drugs. To reduce serious injury and death we need local programs targeting this age group.

The Gold Coast Accessible and Inclusive City Action Plan identifies that more than 20 per cent of the city’s population will be aged 65 years and older by 2031, a substantial increase from the current 14 per cent. Additionally our over 80 years demographic is expected to rise from 10,000 residents to 25,000 residents within 15\(^1\) years. This group of residents are at greater risk of road trauma according to TMR research, which found a reduction in road fatalities for all age groups with the exception of people aged 75 and over from 2008 to 2013.

There are quantitative differences between crashes involving older drivers with those that do not: a greater proportion of the former occur at intersections and on average, involve more than one vehicle\(^2\). The effect of an ageing community on mobility and road safety must be addressed if we are to continue making the city safer.

\(^{1}\)Gold Coast Accessible and Inclusive City Action Plan.

\(^{2}\)TMR research.
Gender
Men are involved in nearly four out of five road fatalities on the Gold Coast. They are especially susceptible as users of more vulnerable transport modes. Between 2008 and 2013, Gold Coast men were involved in:

- 90 per cent of motorcycle hospitalisations and 96 per cent of motorcycle fatalities
- 80 per cent of cycling hospitalisations and 100 per cent of cycling fatalities
- 63 per cent of pedestrian hospitalisations and 71 per cent of fatalities.

Mode of transport
Nearly one third of all serious injuries or fatalities involve non-car users, consisting of pedestrians, cyclists and motorcyclists (Figure 6). These transport users are our most vulnerable road users as they are subject to higher risks of severe injury when involved in a vehicle crash. The City’s Transport Strategy 2031 prioritises the delivery of active travel infrastructure to achieve a sustainable mode share shift away from private vehicles. Increasing awareness of our city’s active transport infrastructure and user self-efficacy will assist our community to undertake travel behaviour change.

Weekend travel
On the Gold Coast, 43 per cent of fatal crashes occur on weekends compared with 30 per cent reported in Brisbane over the same period (Figure 7). Our high level of weekend travel, including visitors unfamiliar with the area and high levels of alcohol and drug use in our entertainment precincts, require local solutions.

Figure 6: Serious road trauma involving vulnerable users (2008-12)

<table>
<thead>
<tr>
<th>Day</th>
<th>Hospitalisations (%)</th>
<th>Fatalities (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
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<tr>
<td>Tuesday</td>
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<td>Saturday</td>
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<tr>
<td>Sunday</td>
<td></td>
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</tbody>
</table>

Figure 7: Gold Coast transport injury - day of the week (2008-12)
**Geographical location**

Our city’s distinct built and natural environment is incredibly varied, as is the transport system that supports the movement of people and goods throughout the city. Figure 8 presents the geographical locations of fatal and serious injuries requiring hospitalisation from all transport system crashes in 2013. For the 2008-13 period, 54 per cent of serious road traumas occurred on locally controlled roads.

*Figure 8: 2013 Gold Coast serious road trauma*
Our approach
Road safety is a community issue and our Road Safety Plan nominates actions and responsibilities for everyone, including road authorities, transport user advocates, law enforcement and the general public. This plan sets the direction for a change in culture – a culture in which fatalities and serious injuries on Gold Coast roads are not accepted as inevitable.

Road safety has many connotations and communities hold vastly different perceptions of what it means and about the actions required to improve it. This plan proposes the adoption of an evidence-based approach to understanding and improving road safety.

**Safe System approach**

The Road Safety Plan adopts a Safe System approach which takes a holistic view of road safety, seeking to manage the interaction between road users, vehicles and the transport system. The Safe System approach was developed in Europe in 1997 and first adopted in Australia in 2003. It is comprised of three basic principles:

- people make mistakes
- human physical frailty
- a forgiving road transport system.

This plan recognises that people will continue to make mistakes resulting in crashes but seeks to reduce both the likelihood of a mistake being made and also the severity of injuries where a crash cannot be avoided.

We have derived a localised Safe System consisting of four themes and aspirations relating to our road safety context, which is presented in Figure 9.

The four Road Safety Plan themes align with the direction of the City's Transport Strategy, supporting the development of a safe and efficient transport system. ‘Our places’ and ‘our transport system’ complement the City’s transport network plans and our planning scheme to ensure our systems and actions take into account road safety in all stages of development. ‘Our people’ and ‘our shared responsibility’ are based on theories of behaviour change which target our community, our organisation and our stakeholders. We acknowledge that better outcomes can be achieved if all levels of government, as well as businesses and communities, work together.

This plan proposes a number of key actions to be delivered within short, medium or long timeframes. These timeframes are defined as short (zero to two years), medium (two to five years) and long (five plus years).

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**Figure 9: Gold Coast Safe System approach to road safety**

Our people

Our city is recognised as one of Australia's most active cities, where people of all ages, gender and abilities safely walk, cycle and actively move for leisure, recreation and transport. Our road users are caring, taking responsibility to understand the road rules and act in a safe supportive manner.

Our transport system

Our city is connected by an integrated and multi-modal transport system that safety and efficiently moves residents, visitors and commodities. Our transport modes seamlessly connect, making journeys safe, convenient and intuitive.

Our places

Our city and its neighbourhoods are purposefully designed considering the interactions of people with land use and transport. Our streets are safe, comfortable and engaging, and our transport infrastructure is more forgiving of human error.

Our shared responsibility

Our city fosters a collaborative and inclusive approach to road safety.
Our people
Aspiration: our city is recognised as one of Australia’s most active cities, where people of all ages, gender and abilities safely walk, cycle and actively move for leisure, recreation and transport. Our road users are caring, taking responsibility to understand the road rules and act in a safe supportive manner.

Influencing and reinforcing expected user behaviour and actions is critical if we are to reduce the occurrence and severity of transport crashes.

Everyone has a role to play in the safe use of the transport system. Individuals are required to uphold the standards and laws that have been designed to provide protection for all who use the transport system. Regardless of the selected mode of travel, complying with road rules and remaining alert and safety conscious can achieve a significant reduction in road trauma.

Figure 10 presents the percentage of serious road injury by mode of travel, highlighting the need to enhance the safety of all road users, with a particular focus on pedestrians, cyclists and motorcyclists.

Speeding remains a major factor in serious and fatal traffic crashes on Gold Coast roads, followed by drink driving, unlicensed drivers and failure to wear a seat belt (Figure 11). The National Road Safety Strategy endorses the development of initiatives to promote the public perception that compliance ‘everywhere, every time’ is the best way of avoiding penalties and improving road safety.

As a community, we need to develop a road safety culture where loss of life and injury on the road is not accepted as inevitable. As individuals, we must respect all road users and behave responsibly and considerately as we share the road.

Excessive speed contributes to 33% of Gold Coast road fatalities.

![Figure 10: Gold Coast transport injury by mode of travel (2008-12)'](image-url)
<table>
<thead>
<tr>
<th>No.</th>
<th>Action</th>
<th>Timeframe</th>
<th>Lead/partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Ensure consistent and effective road safety messages and approaches at a local level via collaborative approaches with state-based road safety media and marketing campaigns.</td>
<td>Short - ongoing</td>
<td>City</td>
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<td></td>
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<td>TMR</td>
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<tr>
<td>1.2</td>
<td>Develop, test and evaluate media and awareness initiatives to encourage improved road user behaviour and compliance for local road safety issues/threats including:</td>
<td>Short - medium</td>
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<td></td>
<td>• reinforcing new or misunderstood road rules</td>
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<td>TMR</td>
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<tr>
<td></td>
<td>• driving to suit conditions</td>
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<td>QPS RACQ</td>
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<td></td>
<td>• ‘courteous’ peak hour behaviour</td>
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<td>• sharing the road with vulnerable users</td>
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<td></td>
<td>• the fatal five (distraction, drink and/or drug driving, fatigue, seat belts, speeding).</td>
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<tr>
<td>1.3</td>
<td>Review approaches and policies associated with the use of Variable Message Signs (VMS) and speed awareness devices, which enable road safety messages to be displayed on public roadways.</td>
<td>Short</td>
<td>City</td>
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<td>1.4</td>
<td>Ensure the City's roads are named and signed to help the community better understand the nature of the road and the type of trips that should be made on them.</td>
<td>Medium</td>
<td>City</td>
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**Figure 11: Behavioural factors contributing to serious road trauma on the Gold Coast**

- **13%**
  - Drink driving was reported as a contributing factor in 13 per cent of serious crashes.

- **9.6%**
  - of fatalities and serious injury involve an unlicenced driver.

- **In 5%**
  - of fatalities and serious injuries seatbelts weren't used.

- **33%**
  - of fatalities involve excessive speed as a contributory factor.
Children (0-16 years)

Since 2008, an average of 50 children aged 16 or younger were either killed or hospitalised each year in transport related crashes within the Gold Coast. The majority (53 per cent) of these injuries occurred as car passengers, however, 40 per cent of serious injuries were active travel modes including pedestrians (21 per cent) and cyclists (19 per cent), as presented in Figure 12.

Road use behaviours of children and youth aged 0-16 include being a passenger, pedestrian, cyclist and user of small wheeled methods of transportation such as skateboards and scooters.

Children are considered vulnerable road users due to their developing cognitive and perceptual abilities. Consequently their road safety skills and knowledge also change considerably over time with increased exposure and experience\(^ {14}\). Children entering their teenage years are experimental, curious and vulnerable to peer pressure\(^ {15}\).

School-based road safety education allows educational messages to be delivered in accordance with a child's cognitive and perceptual development. There is a focus on enhancing understanding of road traffic, the environment and perception of individual safety and the safety of others\(^ {16}\). Ideally all young people would participate in a structured and comprehensive road safety education program that builds on the education they received as children. This program would transition them from being safe pedestrians, cyclists and passengers to being fully competent and safe young transport system users.

Research involving 11-16 year olds revealed many of the attitudes and behaviours associated with driving are present prior to obtaining a learner licence, suggesting our learner drivers commence driving with attitudes already ingrained. The opportunity to influence driving behaviour via tailored road safety and driving messages should commence from as young as 11\(^ {17}\).
<table>
<thead>
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<th>No.</th>
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<th>Lead/partners</th>
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<tr>
<td>1.5</td>
<td>Further develop school-based road safety education and awareness in the City’s Active School Travel (AST) program to:</td>
<td>Short - ongoing</td>
<td>City EQ TMR</td>
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<td>• deliver and support primary school road safety education programs in collaboration with the broader school community</td>
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<td>• conduct Road Safety Audits at schools involved in the AST program</td>
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<td>• educate the broader school community (educators, parents and carers) to consider the effects of their travel choices on the environment, road safety and family health and wellbeing</td>
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<td></td>
<td>• identify opportunities to use VMS and speed awareness devices to communicate road safety initiatives in school precincts.</td>
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<tr>
<td>1.6</td>
<td>Review the City’s AST program resources to ensure effective, contemporary and consistent road safety messages and reinforce appropriate road safety behaviour.</td>
<td>Short</td>
<td>City TMR RACQ CARRS-Q</td>
</tr>
<tr>
<td>1.7</td>
<td>Investigate short-term measures to relieve road safety and traffic congestion issues around school zones.</td>
<td>Short - medium</td>
<td>City TMR</td>
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*Figure 12: Gold Coast transport injury trend - children aged 0-16 (2008-12)*
Case study

The City delivers road safety education to primary school aged children via the Active School Travel (AST) program. AST is a travel behaviour change program that aims to reduce traffic congestion around schools by promoting active travel, public transport and carpooling as active, safe and healthy ways to commute to and from school.

Key initiatives include the Zero the Hero interactive road safety show, which uses Zero the AST safety mascot. It promotes safe travelling behaviours and stands for zero accidents and zero harm.

Additional safety elements are provided to schools through partnerships with the RACQ and Surfside Buslines, which deliver the ‘Streets Ahead’ program and ‘Bus it Safe’, to participating AST schools. These initiatives provide our youngest transport users with the foundation skills for safe travel to and from school.

Additionally, changing children’s travel behaviour can positively influence the travel behaviour of their parents by educating them to consider the effects of their travel choices on the environment, road safety and family health and wellbeing.
Young adults (17-24 years)

On average, 175 young adults aged between 17 and 24 were killed or hospitalised annually, in the five year period between 2008 and 2012 while travelling in the city.

This age group is involved in approximately 27 per cent of all serious crashes while only representing 11 per cent of our population. Alarmingly, provisional licence holders account for 20 per cent of serious road injuries.

Young drivers are at greatest risk of being involved in a crash in their first year of driving unsupervised when they are on their P-plates. As presented in Figure 13, recent Australian research found that very few drivers crashed during the learner period with the crash rate increasing nearly 14-fold from the three months prior to obtaining a provisional licence to the three months after\(^7\).

Research suggests that inexperienced drivers tend to underestimate the level of risk associated with certain types of driving behaviour or situations and overestimate their own level of driving ability or capacity to deal with such situations\(^9\).

Recent crash injury trends for young adults are improving. State initiatives such as the graduated licensing system (GLS), implemented in 2007, and improved second-hand vehicle safety have contributed to a 20-25 per cent reduction compared to the longer-term average\(^2\).

However, the injury trend of transport users aged 17-24 (Figure 14) highlights that young adults remain over-represented in crashes involving most transport modes:

- 28 per cent of car (driver and passenger) injuries
- 22 per cent of motorcycle injuries
- 28 per cent of pedestrian injuries.
While skill and knowledge are important, particularly for novice drivers, they have little influence on the driving environment or conditions under which driving behaviour occurs. On-road driving experience provides the development and maintenance of higher-order cognitive skills related to driving (e.g., hazard perception). In 2011, the Royal Automobile Club of Victoria (RACV) found that while developments in driver training and/or education may eventually reduce casualty accident risk and/or involvement, other approaches such as increased supervised experience, graduated licensing for novice drivers, enforcement and vehicle safety technology are likely to make greater and more lasting contributions to road safety.

Our young people continue to be over-represented in our road trauma statistics. Our 17-24 year olds are involved in 27% of all serious crashes while only representing 11% of our population.

Figure 13: Novice drivers involved in at least one car crash
<table>
<thead>
<tr>
<th>No.</th>
<th>Action</th>
<th>Timeframe</th>
<th>Lead/partners</th>
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<tbody>
<tr>
<td>1.8</td>
<td>Investigate youth road safety issues and identify the range and mix of best practice road safety interventions and/or approaches targeting young adults which could be implemented on the Gold Coast. In line with findings and recommendations: • develop and implement road safety education and awareness programs for local high schools • modify the AST program content to include arising road safety issues relevant for the age group e.g. walker and/or driver distraction.</td>
<td>Short - medium</td>
<td>City</td>
</tr>
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<td></td>
<td></td>
<td>EQ</td>
<td>TMR</td>
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<tr>
<td>1.9</td>
<td>Partner with education providers and community and youth groups to improve access to young driver training initiatives including access for disadvantaged youth.</td>
<td>Medium</td>
<td>City</td>
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<td></td>
<td></td>
<td>QPS</td>
<td>PCYC</td>
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</table>

*Figure 14: Gold Coast transport injury trend - young adults 17-24 (2008-12)*
Seniors (60 years and over)

Our current generation of older drivers is heavily reliant on a car to get around – whether it is to go shopping, visiting family and friends, or getting to medical appointments. Driving enables them to maintain social contacts and participate in community activities. It is a key contributor to people’s quality of life. As a result, older people who drive will prefer to continue to do so for as long as possible. They will also expect to have access to alternative transport modes that meet their individual needs, especially as they approach 80 years of age. Our transport systems and services will play an essential role in supporting independent, healthy ageing.

Recent trends reveal that crashes and injuries among older road users are increasing (Figure 15). Ninety-eight people aged 60 or older were hospitalised or killed on average each year between 2008 and 2012 while using the Gold Coast transport system. Since 2008, 79 per cent of injured road users aged 60 and over were involved as a vehicle driver or passenger. Figure 15 reveals that the number of serious injuries and fatalities for cyclists and motorcyclists for this age group during this same period has doubled.

The increase in serious injury is the result of these modes becoming more popular among all age groups and also reflects our community ageing more actively.

By 2031, we will see an increase in the number of people aged 65 and older from 14 per cent in 2014 to more than 20 per cent. Additionally, the Gold Coast will see the number of residents aged 80-84 years rise from 10,000 to 25,000 in the same time period.

Safe, accessible and inexpensive transport options enable older people to engage with the broader community, access medical care, work and participate in volunteer opportunities. As our ageing population increases, public transport plays an increasingly vital role for those less mobile and fosters inclusive community connections. Providing better public transport for those who cannot access or afford private transport is vital for the health and wellbeing of our older community members. There is also a need for clear, accessible and appropriate mobility device infrastructure. All of these factors must be increasingly considered as necessary to accommodate the demographic shift.
1.10 Develop and support initiatives to improve road safety outcomes for residents and visitors aged 60 years and over, including:

- knowledge of particular risks facing older people and mitigation techniques
- self-assessment for driving and mobility scooter use
- pre-planning for post-car lifestyles
- programs to reduce car usage in favour of public transport.

**Figure 15: Gold Coast transport injury trend - seniors aged 60+ (2008-12)**
Case study

The Free Seniors Travel scheme is a City initiative which aims to assist seniors to better connect with their communities.

The initiative, funded by the City as part of the Gold Coast City Transport Strategy 2031, is delivered in partnership with TMR and Surfside Buslines.

Eligible Gold Coast seniors are able to travel for free on Surfside buses from 8.30am - 3.30pm, Monday to Friday (public holidays included).

Access to safe, affordable, and convenient transport options has been shown to increase seniors’ mobility and reduce private car use.

Due to the success of this initiative, we have extended the Free Seniors Travel scheme until 28 August 2015.
Pedestrians

Most people who use the road system are pedestrians at least part of the time. Pedestrians are especially vulnerable to injury in the event of a crash because they have no protection if they are involved in incidents with vehicles.

Where residents and visitors walk, cities are alive and thriving. Pedestrians generally make the most efficient use of scarce space in cities. Pedestrian areas and intermingling people bring vitality to cities and economic benefit to retailers. Addressing pedestrian safety has the potential to create significant improvements in the liveability of our city and the health of our residents.

Each year since 2008, an average of 60 people were reported killed or hospitalised as pedestrians on the Gold Coast. Age groups most at risk of pedestrian injuries are 0-16 year olds (18 per cent), 17-24 year olds (26 per cent) and people 60 years and over (16 per cent). Cumulatively, these three age cohorts account for more than half of pedestrian injuries. A significant proportion of injured pedestrians in the 17-24 age group were under the influence of alcohol or drugs. Figure 16 presents the key characteristics of serious crashes involving pedestrians on the Gold Coast.

Most pedestrians will not survive being hit by a motor vehicle travelling over 50 kilometres per hour. At 30 kilometres per hour the likelihood of fatality is five per cent; at 40 kilometres per hour it is 20 per cent. As such, pedestrian safety can be increased by providing lower speed environments where there is both high pedestrian activity and motor vehicle numbers, and by providing separation between vehicles and pedestrians in higher speed areas.

The National Road Safety Strategy 2011–2020 recommends that in metropolitan areas in particular, more speed limits of 40 kilometres per hour or lower should be established. It recommends the development of new risk-based national speed limit guidelines for different road categories or functions.
1.11 Undertake a road safety investigation to assist the identification and prioritisation of pedestrian priority zone opportunities for the Gold Coast.

Short - ongoing
City

1.12 Support the development of a citywide pedestrian plan, which will:
- investigate the feasibility of implementing lower speed limits (e.g. 40 kilometres per hour) at locations of pedestrian priority and during times of high pedestrian activity
- develop or reinforce community boulevards at Coomera, Southport, Surfers Paradise, Robina, Nerang, Coolangatta and along the coastal strip to give priority to pedestrians, cyclists and public transport.

Short - ongoing.
City
TMR
PCoA

1.13 Develop a minor works pedestrian improvement schedule which prioritises pedestrian infrastructure improvements at higher risk network segments, such as pedestrian refuges, kerb build-outs and raised thresholds.

Short - medium
City

1.14 Develop and implement a safety program focusing on ‘walking under the influence’ in partnership with licensed establishments addressing intoxicated pedestrian injuries among the 17-24 age group in entertainment precincts.

Short - ongoing
QPS
City
Licensees

Figure 16: Serious crashes with a pedestrian

- 53% of serious crashes involving a pedestrian occur within 1km of the coastline.
- 22% of serious crashes involving a pedestrian are reported in Surfers Paradise.
- 50% of serious crashes involving a pedestrian in Surfers Paradise occur between 8pm and 6am (7 days).
- 35% of serious crashes involving a pedestrian in Surfers Paradise are reported between 8pm and 6am on Friday and Saturday nights only.
Case study

In 2014 the City received seed funding to develop and implement a safety program focusing on walking under the influence. The program seeks to partner with Queensland Police Service, licenced establishments, and public transport operators to improve pedestrian behaviour and enhance access to safer transport options in our entertainment precincts.
Cyclists

Since 2008, an average of 46 cyclists were killed or hospitalised with serious injuries while riding on Gold Coast roads and cycleways each year.

Crash reporting indicates cyclists are most at risk of being involved in a serious crash at or near intersections or conflict points. In particular, approaches to signalised intersections and entering roundabouts are areas of greatest risk. In January 2015 a number of new road rules were introduced to make cycling on the road safer and easier, which includes the choice to ride on a single lane roundabout like any other road user.

Widespread increase in the use of bicycles for recreation and regular travel has resulted in an increase in cycling trips. Despite this, two children aged 0-16 were involved in serious cycling crashes in 2012, notably lower than the average for the years 2008 and 2009, and 2010 and 2011 (9 and 8 incidents per period respectively).

There has been significant growth in bicycle use within the 40-49 and older age groups, particularly among men. People aged 40-49 were involved in 11 serious crashes in 2012, rising significantly from two incidents reported in 2008 (Figure 17). This trend is also reported at the national level and other countries including the United States where cycling participation is increasing within this age group.

A national survey in 2011 found that while 60 per cent of Australians have access to a bicycle, 70 per cent of them were not considering cycling for transport in the near future, even though more than half would like to. Respondents were likely to cite factors related to cycling infrastructure, unsafe road condition, speed and/or volume of traffic, lack of bicycle lanes and safety as key reasons for not cycling often. Additionally, Garrad et al, 2006, found that concerns over safety and aggression from motorists were seen as key deterrents to cycling, particularly for women. It was recommended that road safety campaigns do not just target regular cyclists but also target motorists and pedestrians to increase their awareness of cyclists’ rights and understanding of how to interact with cyclists.

We will continue to plan and deliver a comprehensive and continuous network of safe and attractive routes to cycle. As both safety and perception of safety remain major barriers to people taking up cycling, it is essential that road safety remains a focus to support residents to cycle for recreation and transport.
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<th>Lead / (Partners)</th>
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<tbody>
<tr>
<td>1.15</td>
<td>Incorporate road safety education and awareness in the City's Active Travel Program in an effort to improve cyclist and motorist behaviours, particularly addressing:   • cyclist rights and responsibilities  • interaction with other road users  • visibility  • shared road use.</td>
<td>Short - medium</td>
<td>City  TMR  RACQ</td>
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<tr>
<td>1.16</td>
<td>Undertake a pedestrian and cyclist crash analysis to identify safety issues and use data to develop a program of safety improvements using evidence to develop, support and deliver education and awareness campaigns on road and cycle safety, particularly targeting:   • road safety and people's perception of the safety of pedestrians and cyclists  • extending the City's Active Travel cycling workshops to offer additional programs addressing emerging cycling risk groups  • 30-50 year olds rediscovering cycling for recreation, active travel or sport  • people aged 60 and over who want to cycle as part of retiring actively  • exploring partnerships with services and stakeholders to reach target markets (e.g. the local library program which provides access to retirees).</td>
<td>Short - ongoing</td>
<td>City  TMR</td>
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<tr>
<td>1.17</td>
<td>Identify City-owned facilities that are suitable to support the delivery of cycling proficiency and related road safety training.</td>
<td>Medium</td>
<td>City  QPS  PCYC</td>
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*Figure 17: Gold Coast cyclist injury trends by age cohort (2008-12)*
Case study

The City’s Active Travel Program promotes cycling as both a viable and safe mode of transport and an enjoyable recreational activity. Free cycling workshops are offered for residents to improve rider safety for beginners and people new to or rediscovering cycling, to increase bike maintenance confidence and skill, and enhance road craft and road awareness. Workshops include Get on your Bike, Better Bike Maintenance, Become a Better Cyclist, On the Road – cycling workshop, Basic Cycling Skills for Females, Training Wheels to Two Wheels course, Student Cycling Course and Absolute Beginners.
Motorcyclists

Each year since 2008, more than 95 motorcyclists are killed or hospitalised on Gold Coast roads.

Licensing of older users aged 50 plus has increased significantly since 2003. Anecdotal evidence from advocacy groups suggests that older men are rediscovering motorcycling after being regular riders in their youth. As a result, the incidence of road trauma in this age group has risen dramatically in the past five years (Figure 18).

Gender and age are significant predictors of road trauma involving motorcycles. Men represent 90 per cent of motorcycle hospitalisation and 96 per cent of fatalities. Male motorcyclists aged 17-24 years represent 22 percent of all motorcycle traumas, yet only represent 6 per cent of male motorcycle licence holders.

While the prevalence of motorcycle fatalities in the hinterland is over-represented, motorcycle casualties are also a serious issue close to the coastline, with half of crashes occurring less than five kilometres from the coastline.

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<tr>
<td>1.18</td>
<td>Partner with select motorcycling advocacy groups to communicate motorcycle road safety issues and promote external commercial rider training programs.</td>
<td>Short - medium</td>
<td>City RACQ</td>
</tr>
</tbody>
</table>
Figure 18: Gold Coast motorcyclist injury trends by age cohort (2008-12)
Visitors

More than 11 million people visit the Gold Coast annually, with approximately 79 per cent arriving by private vehicle or a company car \(^{31}\). Connectivity to and within the city is critical to sustainable growth, and visitors need convenient staging points to be able to move across the city safely and efficiently \(^{32}\).

To continue to extend the tourism industry, the Gold Coast will need to ensure its infrastructure and experiences meet the needs of the tourism market and ensure it manages the increased volume of traffic with a quality product and experience.

Many of our interstate or overseas visitors have had limited exposure to the road rules and regulations that apply within our city. Whilst the majority of domestic overnight visitors to the Gold Coast are interstate (48 per cent), visitors from New South Wales (31 per cent) and Victoria (14 per cent) comprise a large portion of our visiting road users \(^{32}\). The top countries of origin for international overnight visitors to the Gold Coast in 2013, include China (25 per cent), New Zealand (22 per cent), Japan (seven per cent) and the United Kingdom (seven per cent) \(^{32}\). As forecasts indicate a continued increase in visitors over the next 10 years, a consistent approach to road safety messages will ensure a safer, more enjoyable stay.

While data analysis does not indicate international tourists or domestic visitors are over-represented in serious Gold Coast crashes, this market deserves consideration due to the number of these users, their unfamiliarity with the local road and traffic environment, and the impact of their impressions of our city’s safety. The increased availability and choice of alternative vehicles to visitors within our city is discussed as an emerging issue for consideration which is presented in the following theme: Our transport system.
<table>
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<th>Timeframe</th>
<th>Lead/partners</th>
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<tr>
<td>1.19</td>
<td>Develop a strategy to encourage visitors to make safe transport choices while visiting the Gold Coast by providing readily accessible, tailored information on how to get around safely without a car.</td>
<td>Medium</td>
<td>City GCT</td>
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</table>
| 1.20 | Partner with Queensland and Gold Coast tourism agencies to develop and promote road safety messages targeting risk issues relevant to visitors:  
  - using public transport – accessing and interacting with the light rail  
  - walking and cycling – look RIGHT!  
  - driving and hire car use – road rules refresher for visitors. | Medium    | City GCT      |
Our transport system
Aspiration: our city is connected by an integrated and multi-modal transport system that safely and efficiently moves residents, visitors and commodities. Our transport modes seamlessly connect, making journeys safe, convenient and intuitive.

Our transport system is complex - comprised of physical roads and pathways, operational plans such as intersection signal phasing, laws including the road rules and speed limits, along with vehicles and emergency response systems.

Detailed data analysis allows us to identify current system and network performance and identify opportunities to deliver safer road environments. Critical roads and intersections have been identified and prioritised to implement strategies in an endeavour to reduce serious road trauma.

Road and pathway network

The City maintains thousands of kilometres of roadways and paths; however 44 per cent of fatalities and hospitalisations are reported on just 20 of our city's roads. More than 20 per cent of serious injuries and deaths occurred on only two roads, the Gold Coast Highway and the M1. This is a result of these roads carrying a significant proportion of the city's traffic in a high speed environment.

While the need to maintain quality roads and increase capacity by building new roads and public transport infrastructure will remain, it is becoming increasingly important to ensure that the existing network is operating as safely as possible. In instances where the road network temporarily reaches capacity, impatient and frustrated multi-modal users who compete for space and priority within their vulnerabilities emerge. The road network can contribute to four key themes and triggers which increase tension between drivers and cyclists: impatience, fear, expectation and awareness.

A smarter and more proactive approach to operating the existing road network across the city is required to balance these competing demands for limited road space. The City has invested in the development of a city road use hierarchy based on three principles: mode; place; and time. The approach of allocating priority separates, where possible, many of the conflicts experienced by road users.

Roads can pose physical and psychological barriers to pedestrians. The speed and volume of vehicles travelling on these routes, distances between signalised crossing points, priority at signals and signal crossing times can all act as barriers to pedestrians, especially those with limited mobility. Treatments to improve pedestrian access and permeability can reduce or remove these barriers. Using crash data, the City can implement desired network changes within our most vulnerable places for pedestrians and cyclists. Improved environments and infrastructure, including prioritising walking and cycling to improve access, amenity and safety for users of those modes, are critically important to realising the benefits for all users of the transport system.

Road crash data between 2008 and 2013 reveals that 15 per cent of all fatalities and serious injuries requiring hospitalisation on the Gold Coast involve people either walking or cycling. Figure 19 highlights suburbs with the highest percentage of serious road trauma for pedestrians and cyclists. This analysis enables the City to prioritise safer walking and cycling environments.
Figure 19: Pedestrian and cyclist crash analysis 2008-13
<table>
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<tr>
<th>No.</th>
<th>Action</th>
<th>Timeframe</th>
<th>Lead/partners</th>
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<tbody>
<tr>
<td>2.1</td>
<td>Develop and implement road safety network screening procedures to prioritise upgrades on our worst performing roads and intersections.</td>
<td>Short</td>
<td>City TMR</td>
</tr>
<tr>
<td>2.2</td>
<td>Investigate and respond to serious injury crashes to determine engineering treatment options while respecting confidentiality of ongoing Police investigations.</td>
<td>Short</td>
<td>City TMR QPS</td>
</tr>
<tr>
<td>2.3</td>
<td>Develop and implement low-cost and/or high-return engineering countermeasures which can be delivered as part of the routine maintenance program.</td>
<td>Long</td>
<td>City TMR</td>
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</tbody>
</table>
| 2.4 | Deliver a safer, more forgiving roadside environment:  
• review existing roadside vegetation maintenance procedures and align prioritisation with road safety objectives  
• review existing signage installation policies with the aim of reducing the proliferation of unnecessary signage hazards  
• prioritise improvements to sealed shoulders on higher speed rural routes to reduce the likelihood of run-off-road crashes. | Short - medium  | City TMR     |
| 2.5 | Develop and install engineering measures and infrastructure to reduce motorcycle injury severity at priority locations.                                                                                 | Short - medium  | City TMR     |
| 2.6 | Use design principles to maximise physical (and psychological) separation of footpaths to through carriageways on major roads.                                                                             | Medium          | City TMR     |
| 2.7 | Prioritise pedestrian and cycling infrastructure improvements at higher risk network segments to improve user safety and the efficiency of the transport network.                                          | Short - medium  | City TMR     |
| 2.8 | Investigate the tools and mechanisms that can be used to increase pedestrian and cyclist permeability in new developments.                                                                            | Medium          | City          |
| 2.9 | Support the City’s Accessible and Inclusive City Action Plan in the provision of safe, convenient and accessible pedestrian infrastructure by:                                                                 | Ongoing         | City          |
|     | • investigating and rectifying insufficient timing at signalised crossings as reported by community members                                                                                 |                 |               |
|     | • establishing a program for identifying and upgrading all City-owned, non-compliant kerb ramps and pathways associated with road crossings to meet Commonwealth Disability Standards |                 |               |
|     | • continuing to investigate and rectify access issues at road crossings                                                                                                                                 |                 |               |
|     | • providing median cut-throughs at appropriate locations on roadways taking into account feedback from community members.                                                                            |                 |               |
| 2.10| Develop and implement specific design standards that provide safe, accessible, high-quality cycling and walking infrastructure. Use these standards to:                                                        | Short - medium  | City TMR     |
|     | • prioritise cycle infrastructure improvements at higher risk network segments  
  - signalised intersection approaches  
  - bicycle lane markings across minor approaches to priority controlled intersections  
  - roundabout approaches, off-roundabout diversions and circulating lanes  
  - painted and separated mid-block cycle lanes at high-risk locations or to complete missing links  
  • support the development and implementation of an ongoing maintenance program to ensure a high level of amenity and safety for users. |                 |               |
Speed limits

Appropriately setting and enforcing speed limits is crucial to ensure we reduce the likelihood and severity of transport fatalities and injuries.

The fundamental principle in setting speed limits for a particular length of road is that the established speed limit should reflect the road safety risk to the road users while maintaining mobility and amenity. However, serious injury can result from crashes at any speed.

Speed limits are especially critical in reducing the severity of injuries encountered by vulnerable users including pedestrians, cyclists, and motorcyclists. Research in South Australia found the estimated effect of reducing the 60 kilometre per hour urban speed limit to 50 kilometres per hour is a 33 per cent reduction in pedestrian fatalities on affected roads, including 13 per cent of cases in which the collision would not have occurred. In the remaining 20 per cent the pedestrian would have been injured but not fatally.

Speed determines the severity of a collision and the faster you travel, your stopping distances increase exponentially. Australian research has found the risk of dying in a crash approximately doubles for each 5 kilometre per hour increase in speed. Figure 20 demonstrates the relationship between speed and stopping distances and the impact of speed on pedestrians. If hit by a vehicle travelling at 60 kilometres per hour the pedestrian has a 90 per cent chance of being killed.

Even in dry conditions, the combination of reaction time and the braking distance means that your vehicle will travel a long way before stopping.

In the past 5 years, half of transport fatalities and hospitalisations occurred on Gold Coast roads with 60 kilometre per hour posted speed limits.

Even in dry conditions, the combination of reaction time and the braking distance means that your vehicle will travel a long way before stopping.

Figure 20: Vehicle speed, stopping distance and resulting probability of pedestrian injury
A 10 kilometre per hour reduction in speed from 50 kilometres per hour to 40 kilometres per hour can reduce the probability of pedestrian death from 85 per cent to 25 per cent. Additionally, research suggests modest reductions in speed (such as 10 kilometres per hour) bring about a reduction in vehicle operating costs, including less wear and greater fuel efficiency, along with less pollution and noise. It also results in a greater ability for drivers to safely undertake and perform difficult manoeuvres, such as stopping, overtaking and turning.

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<tbody>
<tr>
<td>2.11</td>
<td>Develop a strategic view of speed limits with the priority aim of delivering safer road environments for all users:</td>
<td>Short - medium</td>
<td>City TMR QPS</td>
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<td>• investigate increased implementation of the 50 kilometre per hour urban default speed limit in existing 60 kilometre per hour signed roads</td>
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<td></td>
<td>• investigate and implement lower speed limits (for example, 30 or 40 kilometres per hour) at locations of pedestrian priority and during times of high pedestrian activity.</td>
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<tr>
<td>2.12</td>
<td>Investigate and trial temporary speed zones in beachfront entertainment precincts and other locations with high numbers of pedestrian users (e.g. 40 kilometres per hour in Surfers Paradise and Broadbeach on Friday and Saturday nights between 8pm and 5am).</td>
<td>Short - medium</td>
<td>City TMR QPS</td>
</tr>
</tbody>
</table>

For pedestrians, speed is particularly lethal.

If hit by a vehicle travelling at:

- **30 km/hr**
  - The survival rate is **95%**
- **50 km/hr**
  - The survival rate is **45%**
- **60 km/hr**
  - The survival rate is **10%**

Hits at 46km/h

Hits at 66km/h

Gold Coast Road Safety Plan 2015-2020
Signalised intersections

The City and TMR maintain and operate approximately 500 signalised intersections throughout the city. Whilst signalised intersections are important for safety and reducing delays, one in five serious crashes on our network is reported at signalised intersections.

Of these incidents, a quarter is reported at just 22 intersections and half occur at 71 intersection locations. These are considered our worst performing signalised intersections and have been ranked in order of poorest safety performance in Figure 21 below. Using detailed crash analysis enables the City to proactively address any system issues to create a safer road network.

Figure 21: Gold Coast signalised intersection crash ranking

<table>
<thead>
<tr>
<th>2003-12 crash ranking</th>
<th>City controlled signals</th>
<th>TMR controlled signals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Markeri St/Sunshine Blvd</td>
<td>Southport-Burleigh Road/ Nerang-Broadbeach Road</td>
</tr>
<tr>
<td>2</td>
<td>Hickey Way/Nielsens Rd</td>
<td>Gold Coast Highway/Oxley Drive/Olsen Drive</td>
</tr>
<tr>
<td>3</td>
<td>Elkhorn Ave/Ferny Ave</td>
<td>Nerang-Broadbeach Road/Gold Coast Springbrook Road/Robina Parkway</td>
</tr>
<tr>
<td>4</td>
<td>Gold Coast Highway/Monaco St</td>
<td>Gold Coast Highway Terminal Drive/Johnson Street</td>
</tr>
<tr>
<td>5</td>
<td>Cavill Ave/Surfers Paradise Blvd</td>
<td>Southport-Burleigh Road/Cottesloe Drive</td>
</tr>
</tbody>
</table>
There are several high-instance crash types that are reported at our worst performing signalised intersection locations which are demonstrated in Figure 22. These incidents typically require a vehicle either to drive through a red light or make a judgement error when making a filter turn.

Analysis reveals:
- approximately 60 per cent can be categorised as DCA 202 (incidents involving a right turning vehicle colliding with a vehicle travelling straight from the opposite approach)
- approximately 14 per cent of crashes are DCA 101 (involving two vehicles travelling through the intersection from adjacent approaches).

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<tr>
<td>2.13</td>
<td>Work with TMR/QPS to investigate the feasibility of installing speed and red light cameras at priority sites, taking into considering CDOP site selection guidelines.</td>
<td>Short</td>
<td>QPS City TMR</td>
</tr>
</tbody>
</table>
| 2.14 | Investigate and implement solutions to improve safety at traffic signals:  
• prioritise signal phasing modifications to reduce the occurrence of DCA 201 crashes (right and through collisions from opposite approaches)  
• trial increased ‘all red’ signal phasing at intersections with a high occurrence of red light running and DCA series 1 collisions (crashes from adjacent approaches)  
• improve traffic signal coordination to reduce DCA series 3 (rear-end crashes on major routes and at crash cluster locations)  
• trial innovative and intelligent signal phasing solutions to improve pedestrian and cyclist safety, (e.g. dynamic timing for seniors, pedestrian priority during high risk periods, countdown timers and improved loop detection for cyclists). | Short - medium | City TMR QPS  |

![Figure 22: Crash types at signalised intersections](image-url)
Public transport

Improved public transport provides greater choice in how residents and visitors travel and helps alleviate road congestion, reduce pollution and keep people connected to each other and their communities. The City supports the provision of a range of safe, convenient and accessible mobility and transport modes.

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<tr>
<td>2.15</td>
<td>Promote safe behaviour both on board and at public transport stops, exploring a range of initiatives that deter anti-social behaviour on public transport.</td>
<td>Short</td>
<td>TMR, City, QR, QPS</td>
</tr>
<tr>
<td>2.16</td>
<td>Work with public transport providers (TransLink, Surfside Buslines and Queensland Rail) to ensure that the safety of bus and train users is considered in station design.</td>
<td>Medium</td>
<td>TMR, City, QR, QPS</td>
</tr>
</tbody>
</table>
Light rail

The G:link system has been operating since July 2014. This unique transport system follows a coastal route from Broadbeach to Main Beach, before accessing the Central Business District in Southport and on to Griffith University and the Gold Coast University Hospital. It has already proved to be an efficient and effective means of transport for the city’s residents and visitors, with the system transporting more than 530,000 passengers every month (January 2015).

The current system of 14 trams departs one of the 16 stations approximately every seven and 10 minutes during the day on weekdays and weekends respectively, with trams continuing all night on the weekends to take diners and nightlife revellers home safely. While detailed user safety statistics are not yet available (March 2015), the City worked closely with GoldLinQ and TMR prior to the system launch to ensure that the system was designed and constructed to the safest possible standard. The City is also continuing to partner with key operational and maintenance stakeholders to maximise system (and user) safety.

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<tr>
<td>2.17</td>
<td>Supplement the G:link operator’s road safety information with additional awareness campaigns for transport system users and those working on or in the near vicinity of the light rail.</td>
<td>Short</td>
<td>City</td>
</tr>
<tr>
<td>2.18</td>
<td>Within the City’s sphere of influence, respond to emerging light rail user safety and network issues.</td>
<td>Long</td>
<td>City</td>
</tr>
</tbody>
</table>
Emerging system elements

**Alternative vehicles**

The use of motorised wheelchairs, mobility scooters, personal mobility devices, motorised bicycles, motorised foot scooters and skateboards and other transport devices is increasing. Many of these devices can be legally used on roads, footpaths, bike paths and shared paths; interacting with pedestrians, cyclists, and other vehicles.

Motorised recreational vehicles such as mopeds, scooters and personal mobility devices appeal to groups of people riding for fun. This group activity can be accompanied by a level of foolish and unsafe behaviour, especially on footpaths, which then poses a threat to pedestrians.

With affordable hire rates and the appeal of “no license, no age limit and no fuel required”, these vehicles are increasing in popularity. The City has an opportunity to work proactively with tourist-oriented transport operators and identify initiatives which would ensure the safety of both riders and other shared path users.

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We need to proactively ensure safety of all road users including motorised and non-motorised transport devices through facility design and local government law.

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### Emergency response systems

The existing Gold Coast Emergency Vehicle Pre-Emption (EVP) system was developed as a pilot program in November 2012. The system improves post-crash injury response by reducing the travel times for emergency vehicles by automatically altering signal phasing to provide a ‘green wave’ for ambulance and fire service vehicles. The system is delivered in partnership with TMR, the Department of Community Safety and QPS.

The system is currently being expanded over a wider geographic area to encompass journeys to the relocated Gold Coast University Hospital at Parkwood.

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The EVP system provides more than 600 green lights to emergency vehicles each week and has been shown to reduce response times by as much as 18%.
Compliance

A significant proportion of crashes involving serious injury or death involve unlicensed users, unregistered vehicles or users disobeying road rules including mandatory seatbelt and helmet use, speed limits, and blood alcohol limits. Support and encouraging road rule compliance will continue.

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<tr>
<td>2.23</td>
<td>Investigate incorporating vehicle identification technology into existing City and State assets to assist QPS enforcement.</td>
<td>Long</td>
<td>TMR City QPS</td>
</tr>
</tbody>
</table>
Our places
Aspiration: our city and its neighbourhoods are purposefully designed considering the interactions of people with land use and transport. Our streets are safe, comfortable and engaging, and our transport infrastructure is more forgiving of human error.

Planning

Our city’s population is currently just under 550,000 residents and is projected to be home to more than 922,000 people in 2036\(^7\). We evaluate and approve approximately around 1500 Material Change of Use and Reconfiguration of Lot development applications every year. Assessing these applications with transport safety as a key criterion has the potential to improve the inherent safety and built form of our most popular spaces.

There are a number of important objectives for an integrated and sustainable transport network – efficiency, coordination, reliability, environmental sustainability, land use integration and safety. Detailing how to make best use of the network by assigning priority to different modes of transport at particular times of the day, plays an important role in the development of informed investment and integrating transport and land use planning in a growing city. The City supports broader strategies around land use and transport, ensuring transport strategies respond to land use changes and are underpinned by a Safe Systems approach.

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<tr>
<td>3.1</td>
<td>Undertake a road safety focused review of the City’s Land Development Guidelines (and associated relevant policies) providing recommendations to integrate Safe System principles and improved consideration of road safety items in future planning scheme and transport network policies.</td>
<td>Medium - long</td>
<td>City</td>
</tr>
<tr>
<td>3.2</td>
<td>Plan, invest in and actively manage roads according to the Road Development and Management Framework which incorporates an identified road network hierarchy and the designated user priority, allowing the right type of traffic to be assigned to the right road, avoiding significant conflicts with existing development and ensuring funds are directed to achieve sustainable transport outcomes.</td>
<td>Long</td>
<td>City, TMR</td>
</tr>
<tr>
<td>3.3</td>
<td>Incorporate safety ‘costs’ and injuries as key quantitative criteria in developing and prioritising the Gold Coast Road Network Plan.</td>
<td>Short</td>
<td>City, TMR</td>
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<tr>
<td>3.4</td>
<td>Facilitate improved access to road safety information for:</td>
<td>Short - medium</td>
<td>City, TMR</td>
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<td></td>
<td>• development applicants</td>
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<tr>
<td></td>
<td>• consultants</td>
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<td></td>
<td>• City assessment officers</td>
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<td></td>
<td>• elected officials.</td>
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Our beachfront

Our beachfront zone measures 1 kilometre from the coastline and is home to many of our entertainment precincts, tourist attractions and accommodation, commercial and retail uses, and recreational pedestrian and cycle routes.

In particular, the Surfers Paradise and Broadbeach precincts are home to a myriad of music, sports and cultural events in every season of the year, including music festivals and beachfront markets. These events transform the local streets into zones filled with people.

The Southern Gold Coast also showcases the city's iconic beaches and a gateway into the region's hinterland areas. A wide variety of events from small local community celebrations to major festivals attract interstate and international visitors, such as the World Surfing Tour, the Quicksilver and Roxy Pro and Bleach* Festival.

Our beachfront precincts naturally lend themselves to being enjoyed actively on foot or by bike. Redevelopments have enabled the provision of safer crossing facilities and better footpaths and beach access. Focus must remain on prioritising our most vulnerable road users, pedestrians and cyclists, within these activity zones.

53% of serious pedestrian injuries occur within 1km of the coastline.

More than 1 in 3 crashes involving serious injury to cyclists are also located in this same zone.

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<tr>
<td>3.5</td>
<td>Support safer infrastructure developments within the beachfront zones. Monitor infrastructure enhancement installations to inform development within the city’s highest pedestrian areas as a means to create safer transport environments.</td>
<td>Medium</td>
<td>City</td>
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<td>TMR</td>
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Case study

The City actively investigates the latest advances in technology to ensure pedestrian and cyclist safety. The installation of sensor-activated crossings, also known as puffin crossings, at Main Beach, Broadbeach and Robina form part of our ongoing program to improve pedestrian accessibility and safety.
Our hinterland

The Gold Coast hinterland offers some of the best scenic drives in the country. It’s less than a 30 minute drive from the coast in some areas so is easily accessible to residents and visitors. The scenic appeal and natural challenge of the terrain has resulted in many of the hinterland tourist routes being used by recreational motorists, cyclists and motorcyclists.

Within the hinterland road network, drivers and riders experience a wider variety of road conditions, larger number of roadside and environmental hazards and greater speed variation. Evidence suggests that these factors are components of the distinctive crash causal factors within regional and rural Australia. Alarmingly, the risk of being killed on rural roads per kilometre driven is four to six times higher than on motorways and a person involved in a rural crash is over 10 times more likely to lose their life than if they had been involved in a crash in an urban area.

The City can use the characteristics of rural road crashes to identify proactive opportunities to ensure the safety of hinterland road users.

1 in 4 motorcycle crashes occur in the hinterland region and these crashes represent half of all motorcycle fatalities.

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<tr>
<td>3.6</td>
<td>Develop and install engineering measures to reduce injury severity at priority hinterland locations, including those susceptible to natural environmental hazards such as flooding and rockfall.</td>
<td>Short - medium</td>
<td>City, TMR</td>
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Our events

Events play a significant role in the liveability, economy and overall image of the Gold Coast. Our success in hosting events of various sizes and types throughout the year and throughout various parts of the city has earned us an enviable reputation as an events destination.

Major events attract significant numbers of international and domestic visitors as well as Gold Coast community members. Ensuring safe, efficient travel experiences to and from events requires high level coordination for both planning and management. This coordination and forward planning underpins world-class transport systems.

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<td>3.7</td>
<td>Collaborate with City Events to add a road safety criterion to the existing Process and Resource Focus Area. This will allow consideration and promotion of a transport system that safely and efficiently moves residents, visitors and commodities at all stages of event development, management and evaluation.</td>
<td>Short - medium</td>
<td>City</td>
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<td>3.8</td>
<td>Advocate for the inclusion of road safety within major event debriefs to capture learnings.</td>
<td>Short - medium</td>
<td>City</td>
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<td>3.9</td>
<td>Improve consideration of, and potential learnings relating to road safety and major event management plans by:</td>
<td>Medium - long</td>
<td>City</td>
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<tr>
<td></td>
<td>• promoting public transport options to reduce drink driving and walking</td>
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<td></td>
<td>• reducing pedestrian risk through road closures and speed reductions surrounding events</td>
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<td></td>
<td>• hosting regular ‘learning’ sessions to determine and implement improved road safety consideration for events.</td>
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Our shared responsibility
Aspiration: our city fosters a collaborative and inclusive approach to road safety.

Road safety is a shared responsibility. We all need to play our part, which is why our Road Safety Plan has been developed using a Safe System philosophy; Our people; Our transport system; Our places; Our shared responsibility. Achieving lasting change in road safety is dependent upon a collaborative and inclusive approach requiring governments, industry and the broader community to work together. Our collective task is to build a culture where safety is an inherent part of all decision-making that affects the road system, its operation and its use. We must strive to implement Safe System solutions that allow for human error and provide forgiving environments that prevent serious injury or death when crashes occur.

Ensuring the best decisions are made by the right people will enable us to achieve sustained road safety outcomes. Our corporate governance plays a crucial role in communicating transparency and accountability for our decisions, actions and investment. Implementation of the Gold Coast Road Safety Plan should be overseen by a fit-for-purpose governance, building on the effective partnering that enabled the comprehensive investigation and preparation of this plan. This governance structure will be inclusive of state and local government, education and industry, representing collaborative effort and more effective outcomes. A commitment to shared access to relevant research and data collection, as well as all tiers of government working together to identify funding opportunities for road safety investment on the Gold Coast will support inclusive practices for collective road safety investment.

This plan will be subject to regular monitoring and review in an endeavour to improve the effectiveness of existing projects and support the selection of more effective actions. This process will involve engaging City officers, road safety experts, partners and key stakeholders. Monitoring may in some instances result in amendments or changes to actions to ensure they are timely, responsive to emerging issues and reflect progress. The primary measure of success for the plan will be determined by the actual reduction in the numbers of fatalities and serious injuries from road crashes. We will analyse crash statistics reported by TMR and QPS on an annual basis to determine progress towards targets.

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<tr>
<td>4.1</td>
<td>Review the existing multi-agency Road Safety Planning committee and establish a fit-for-purpose governance structure to enable the plan’s implementation and continue road safety investment throughout the city.</td>
<td>Short</td>
<td>City, TMR, RAC, CARRS-Q, DCS</td>
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<tr>
<td>4.2</td>
<td>Establish a stakeholder agreement between organisations detailing commitment to and responsibility for the implementation of the Road Safety Plan.</td>
<td>Short</td>
<td>City, TMR, RAC, CARRS-Q, DCS</td>
</tr>
</tbody>
</table>
| 4.3 | Develop collaborative and integrated approaches to road safety efforts to support the plan’s implementation, including but not limited to:  
  - initiatives and programs  
  - resource sharing and co-location of multi-agency officers within the City’s Transport and Traffic Branch. | Short - medium | City, TMR |
| 4.4 | Identify opportunities to enable shared access to road safety tools, information and statistical resources to enable timely response to road safety issues using:  
  - current and user-friendly transport crash data  
  - network screening and road safety risk assessment tools  
  - road safety engineering treatment effectiveness measures. | Short - ongoing | City, TMR |
| 4.5 | Investigate funding opportunities available to local government to assist in the delivery of the Road Safety Plan actions. | Short - ongoing | City, TMR, RACQ |
| 4.6 | Establish fit-for-purpose monitoring and evaluation tools to ensure that the Road Safety Plan actions successfully mitigate local road safety issues and emerging trends. | Short - ongoing | City, TMR, RACQ, CARRS-Q, DCS |
References


31. Tourism Research Australia, unpublished data.


For more information
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W  cityofgoldcoast.com.au