



briefing notes - road safety issues

Hamilton City

Land Transport New Zealand has prepared this road safety issues report. It is based on reported crash data and trends for the 2003–2007 period.

The intent of the report is to highlight the key road safety issues and be a resource to identify possible ways to reduce the number of road deaths and injuries in the Hamilton City area.

This report is the ninth road safety report for the Hamilton City area. All material unless otherwise stated in this report applies to both local roads and Transit New Zealand (Transit NZ) roads in the Hamilton City area.

In each new report one year's data is added to a five year block and the oldest dropped, so it is unlikely that the core issues for any local body would change radically from report to report.

The issues chosen for this report are drawn from either the most common crash types, those that appear over-represented when the Hamilton City area is compared to similar local bodies or those with high social cost (high numbers of fatal and serious crashes mainly).

We encourage local authorities to use the Ministry of Transport's Crash Analysis System (CAS) to further investigate the highlighted issues.

Major Road Safety Issues		2007 road trauma	
Hamilton City		Casualties	
Intersections		Deaths	6
Alcohol		Serious casualties	53
Speed		Minor casualties	423
Rear End			
Nationally		Crashes	
Speed		Fatal crashes	6
Alcohol		Serious injury crashes	42
Failure to give way		Minor injury crashes	317
Restraints		Non-injury crashes	1111

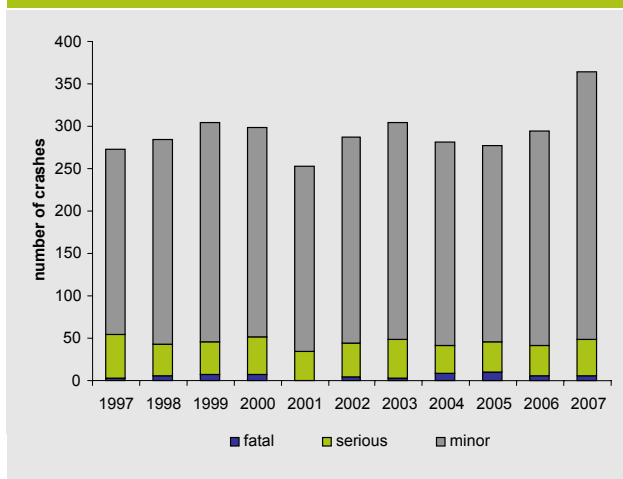
Overview of 2007

In 2007 on local roads in Hamilton City there were 296 injury crashes and 897 non-injury crashes, in addition there were 69 injury crashes and 214 non-injury crashes on Transit NZ roads, as reported by the New Zealand Police.

The table below shows the number of injuries resulting from 2007 crashes by rural or urban areas for both local and Transit NZ roads (rural is defined as an area with a speed limit of 80km/h or more).

	Fatalities	Serious injuries	Minor injuries	Total
Local Roads	3	44	344	391
Transit Roads	3	9	79	91
Total	6	53	423	482

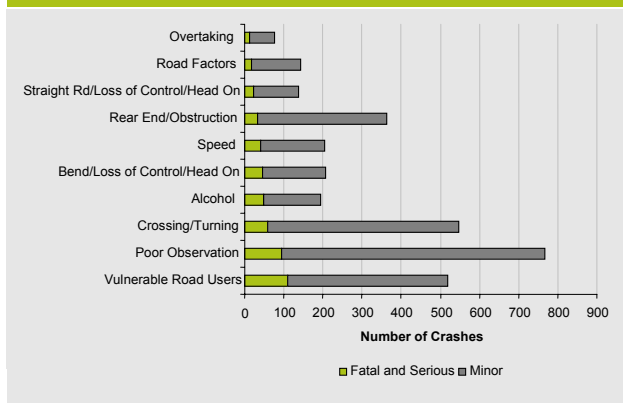
Hamilton City injury crashes 1997 - 2007



Fatal crashes in the city rose between the years 2001 and 2005 but have remained steady over the last 2 years.

Minor injuries rose over the last 3 years.

Main crash characteristics 2003 - 2007



Local road fatal and serious crashes		
Crash type or contributory cause 2003-2007	Percentage fatal and serious crashes of this type or contributory cause	Percentage all injury crashes of this type or contributory cause
Alcohol	20	12
Too fast	18	14
At bends	19	13
At intersections	51	52
Vulnerable road users		
1. Pedestrians	26	10
2. Cyclists	11	9
3. Motorcyclists	16	7
Roadside hazard struck	29	20
Road factors	7	16
Night time	36	33
Loss of control	28	17

Further information about 2007 injury and non-injury crashes on local roads in Hamilton City:

- Worst month May, best December
- Worst day Friday, best day Sunday
- 25 percent wet road
- 35 percent night time
- 55 percent at intersections
- 60 percent of at fault drivers are male (injury crashes)
- Social cost of crashes in 2007 \$69m

Further information about 2007 injury and non injury crashes on Transit roads in Hamilton City:

- Worst month July, best November
- Worst day Saturday, best Sunday
- 26 percent wet road
- 31 percent night time
- 61 percent at intersections
- 58 percent of at fault drivers are male (injury crashes)
- Social cost of crashes in 2007 \$24m

Speed

Nationally, speed is one of the major contributing factors to road crashes. For the 12 months to the end of December 2007, excessive speed contributed to around 33 percent of fatal crashes and 18 percent of injury crashes.

During 2007, there were 2103 injury crashes where the driver was travelling too fast for conditions.

Reducing speeds to appropriate levels is an important road safety goal. Excessive speed increases the likelihood of a crash occurring by reducing the time available for drivers to respond to hazardous situations and it also leads to more serious injuries. Research has shown that a one km/h reduction in mean speed can produce up to a three percent reduction in injury crashes.

In the Hamilton City, excessive speed was a factor in 18 percent of injury crashes in 2007.

There were 204 speed related injury crashes reported in the last five years

Speed related injury crashes	2003	2004	2005	2006	2007
Urban	34	29	22	35	51
Rural	6	6	2	4	15
Total	40	35	24	39	66

Males represented 74 percent of at fault drivers in speed related injury crashes.

Drivers at fault or part fault in speed related injury crashes (2003-2007) *	Male	Female	Total
15- 19 years	61	25	86
20 - 24	42	11	53
25 - 29	21	4	25
30 - 39	10	8	18
40 - 49	12	5	17
50 - 59	3	1	4
60 - 69	2	0	2
70+	2	0	2
Total	153	54	207

* (note ranges are not equal)

Further information about speed related injury crashes (2003 to 2007) on local roads in Hamilton City:

- 11 deaths, 33 serious injuries, 197 minor injuries
- 74 percent of at fault drivers were male
- Most common crash type, Bend – loss of control/head on
- 61 percent midblock
- 34 percent wet road
- 55 percent night time
- Worst month April, best October
- Worst day of week Sunday, best Monday

Further information about speed related injury crashes (2003 to 2007) on Transit NZ roads in Hamilton City:

- 5 deaths, 9 serious injuries, 37 minor injuries
- 73 percent of at fault drivers were male
- Most common crash type, Bend – loss of control/head on
- 45 percent midblock
- 58 percent wet road
- 55 percent night time
- Worst month May, best January
- Worst day of week Saturday, best Friday

Intersections

Crashes at intersections are the most common crash type in urban areas of the Hamilton City.

During the five year period 2003 to 2007 there were 814 injury crashes at intersections and 3160 non-injury crashes. In these 13 people died, 109 received serious injuries and 911 received minor injuries.

Intersection crashes	2003	2004	2005	2006	2007
Injury crash	157	163	151	146	197
Non-injury crash	548	563	738	683	628
Total	705	726	889	829	825

The table below shows the locations of the five intersections with the highest number of crashes in the Hamilton City between 2003 and 2007.

Intersection name	Total crashes 2003 - 2007	Injury crashes 2003 - 2007	Total crashes in 2007
Mill St/Victoria St	59	18	17
Brooklyn Rd/ Peachgrove Rd	53	7	7
SH1/SH3	52	10	10
SH1/Grey St	49	11	5
SH 1/ Forest Lake Rd	47	9	10

Crashes at Tee junctions in urban areas are the most common type of intersection crash reported, followed by crashes at cross (X) type urban junctions.

Junction type	Rural	Urban
Roundabout	85	643
Tee	151	1630
Cross (X)	19	1230
Y	2	34
Other (includes driveways)	9	168

The main causes contributing to crashes described in Police reports were:

- Failure to stop and give way
- Not checking properly
- Too fast for conditions

The most common crash is one when a driver fails to give way and crosses the path of a vehicle coming at a right angle to them. The second most common crash is when a driver turns right at an intersection and is hit by a vehicle approaching from the right.

Further information about injury crashes at intersections (2003 to 2007) on local roads in Hamilton City:

- 10 deaths, 85 serious injuries, 701 minor injuries
- 59 percent of at fault drivers were male
- 10 percent involved alcohol
- 27 percent wet roads
- 34 percent night time
- Worst month May, best September
- Worst day of week Thursday, best Sunday

Further information about injury crashes at intersections (2003 to 2007) on Transit NZ roads in Hamilton City:

- 3 deaths, 24 serious injuries, 210 minor injuries
- 55 percent of at fault drivers were male
- 8 percent involved alcohol
- 25 percent wet roads
- 37 percent night time
- Worst month May, best October
- Worst day of week Friday, best Tuesday

Vulnerable road users

Vulnerable road users are those who have very little physical protection in the event of a crash and are therefore susceptible to severe injuries.

The Government is aiming to increase walking and cycling in New Zealand. Land Transport NZ encourages local authorities to take a proactive approach to this subject. This should include the development of a Walking and Cycling strategy in the districts Land Transport Programme, along with appropriate projects to support the strategy. It is critically important to recognise that promotion alone of walking and cycling will not be effective at increasing mode share, unless these activities can be made safer.

Pedestrians

Although pedestrian injuries do not feature highly in the total road injury statistics in Hamilton City, representing only 11 percent of all injuries, they make up 25 percent of all fatalities.

Pedestrian injuries	2003	2004	2005	2006	2007
Fatal	3	-	5	1	0
Serious	13	7	10	6	9
Minor	33	32	29	28	25
Total	49	39	44	35	34

Most (98 percent) of pedestrian crashes occur on urban roads, with over 60 percent of these away from intersections. 71 percent were in daylight hours. The time of day with most pedestrian crashes was 3 pm - 6 pm with almost one third of all pedestrian crashes being in this period.

The numbers of male and female pedestrians injured in Hamilton City are very close. The largest age groups were 5-9 years and 15-19 years, but all age ranges are well represented.

The decision by Police to enforce a lower speed tolerance around schools is a significant step in creating a safer lower speed environment for young pedestrians.

Ages of pedestrian casualties			
Pedestrian age	Female	Male	Total
0-4	5	7	12
5-9	14	19	33
10-14	8	14	22
15-19	10	17	27
20-24	6	6	12
25-29	10	9	19
30-39	8	7	15
40-49	10	10	20
50-59	3	3	6
60-69	6	6	12
70+	13	10	23
Total	93	108	201

Pedestrian crashes are concentrated on arterial and collector roads. The top five locations (on the basis of fatal, serious and minor injuries) are shown in the table below.

Location	Number of pedestrian injury crashes
Victoria Street – between Hood & Marlborough Streets	5
Anglesea Street – Bryce Street in vicinity of intersection	5
Victoria Street – Bryce Street in vicinity of intersection	4
Anglesea Street – Ward Street in vicinity of intersection	4
Victoria Street – Collingwood Street intersection	4

Further information about the 193 injury pedestrian crashes on roads in Hamilton City 2003 to 2007:

- The most common crash type was for a pedestrian crossing the road being hit by a driver approaching from their right.
- Worst month May, best January
- Worst day of week Thursday, best Sunday
- 34 percent of drivers at fault

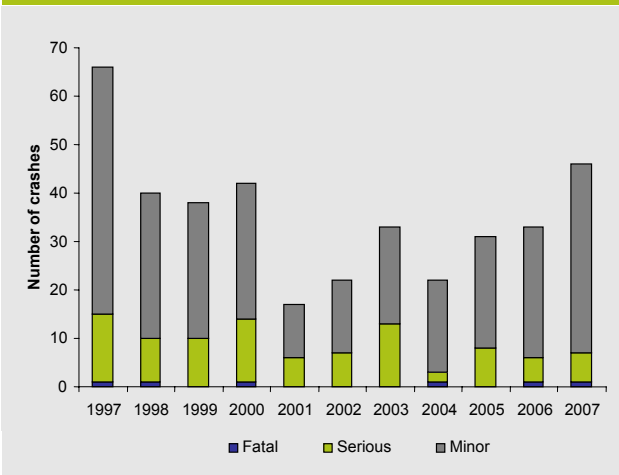
Motorcycles

Nationally motorcycling fatalities dropped from 20 percent of all fatalities in 1988, to just six percent in 2003. Since then there has been an increase in motorcycle registrations and this has reversed the downward trend. In 2007 motorcyclists accounted for 11 percent of road fatalities in New Zealand a rise from 10 percent in 2006

In Hamilton City motorcycle injury crash numbers have fluctuated from 1997 to 2003 and have risen steadily over the last 4 years.

Most (88 percent) of motorcycle crashes occur on urban roads, with over 60 percent at intersections. 73 percent were in daylight hours. The time of day at which most motorcycle crashes occurred was 3 pm - 6 pm with almost one third of crashes being in this time period.

Hamilton City motorcycle injury crashes 1997 - 2007

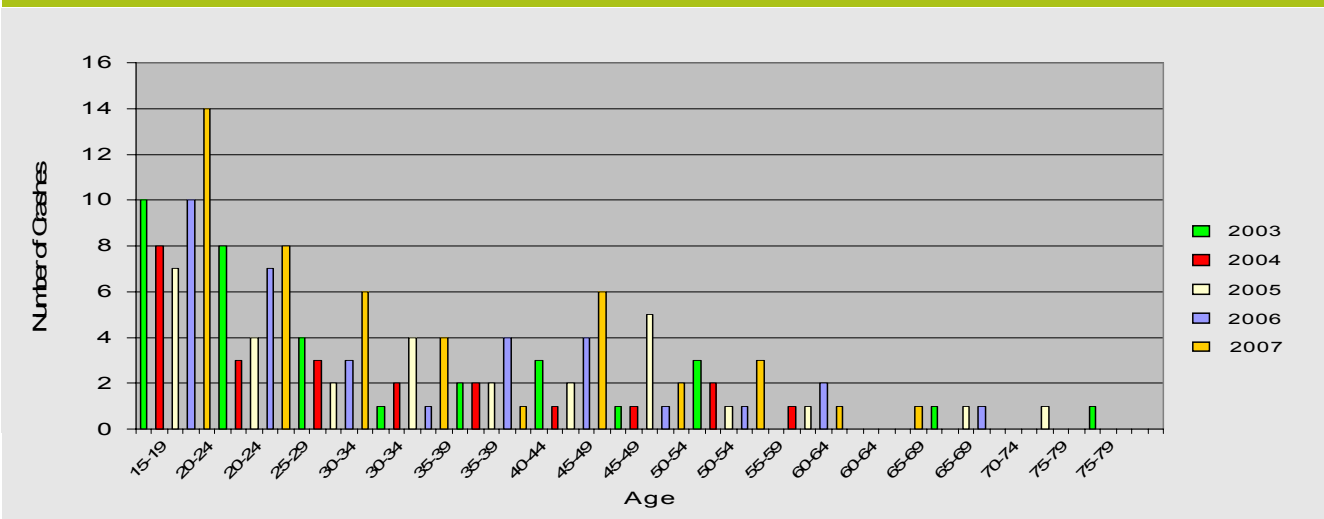


Further information about the 165 injury motorcycle crashes on roads in Hamilton City (2003 to 2007):

- The most common crash type involving motorcycles was vehicles turning in front of the motorcyclist when approaching from the right.
- Worst month May, best January
- Worst day of week Thursday, best Sunday
- Social cost of crashes \$42m

Below is a graph showing the increasing instance of motorcycle crashes for nearly all age groups over the last five years (2007 in particular)

Hamilton City motorcycle injury crashes - age group vs year 2003 - 2007



Rear End Crashes

Between 2003 and 2007 24 percent of all injury crashes in Hamilton City involved rear end collisions. These crashes resulted in 5 fatalities, 30 serious injuries and 411 minor injuries.

Crash numbers have fluctuated over the last 5 years.

Rear End collisions 2003 to 2007				
Crash year	Fatal crashes	Serious crashes	Minor crashes	Total
2003	2	8	72	82
2004	-	3	51	54
2005	1	6	67	74
2006	1	5	66	72
2007	1	7	72	80

Most rear end crashes involve a driver failing to see a car slowing, 20 percent of all rear end crashes included this factor.

Characteristics of rear end crashes are shown in the table below.

Main characteristics of injury rear end crashes	
Crash characteristics	Percentage of crashes
Following to closely	18
Alcohol	7
Excessive speed for conditions	10
Road factors	6
Poor handling	3
Wet road	22
Night time	23
Incorrect lane position	22

Further information about rear end injury crashes (2003 to 2007) on local roads in Hamilton City:

- 2 deaths, 25 serious injuries, 335 minor injuries
- 61 percent of at fault drivers were male
- Most common crash type, Failing to see a slowing or stopped vehicle
- Most common age group 15 – 19 years
- Worst month May, best January
- Worst day of week Thursday, best Sunday
- Worst time period 3 – 6pm

Further information about rear end injury crashes (2003 to 2007) on Transit NZ roads in Hamilton City:

- 3 deaths, 5 serious injuries, 76 minor injuries
- 63 percent of at fault drivers were male
- Most common crash type, Failing to see a slowing or stopped vehicle
- Most common age group 20 – 24 years
- Worst month May, best February
- Worst day of week Wednesday, best Tuesday
- Worst time period 3 – 6pm

Partnerships

Land Transport NZ works closely with many road safety partners at national, regional and local levels. These include government departments, enforcement agencies, territorial local authorities, health authorities and local service providers.

Some of the key road safety partners in the Hamilton City include:

New Zealand Police

Waikato District Road Policing Manager
Inspector Leo Tooman
PO Box 3078
Hamilton
Phone 07 850 7063

Road Safety Co-ordinator

Hamilton City Council
Jacqueline Beaton
Private Bag 3010
Hamilton
Phone 07 838 6758

Local Authority Engineer

Hamilton City Council
Roger Ward
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Accident Compensation Corporation

Waikato Area
ACC Injury Prevention Consultant
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