

6 October 2016

Jonathan Young MP Chair Transport and Industrial Relations Committee Parliament Buildings Wellington

Dear Mr Young,

#### Submission on Petition 2014/59 of Joanne Clendon

- 1. The Road Controlling Authorities Forum (New Zealand) Incorporated (**RCA Forum**) is grateful for this opportunity to make a submission on the petition of Joanne Clendon to change the current restrictions on cycling on footpaths.
- 2. Unless the Select Committee considers it necessary, the RCA Forum does not ask to appear.
- 3. The contact regarding this submission is:

Wayne Newman Executive Officer Research and Guidelines Steering Group RCA Forum (NZ) Inc.

Email: wayne@cresmere.co.nz

Phone: 04 475 8439 Mobile: 027 565 3311

- 4. The RCA Forum is a closed, non-political incorporated society of road asset managers and roading professionals from all the territorial local authorities (except the Chatham Islands Council), the Department of Conservation and the New Zealand Transport Agency, established in 1996.
- 5. The RCA Forum's vision is to assist road-controlling authorities to make informed decisions. It supports sector working-groups on common issues and meets to exchange information on sector activities, proposed legislation, standards and strategies relevant to the other member organisations.
- 6. The RCA Forum currently has two working groups looking specifically at the provision of best practice for walking and cycling infrastructure and policy and guidance around shared footpaths. This submission on the petition of Joanne Clendon is made on behalf of the RCA Forum working groups currently addressing these issues.
- 7. These groups consider that the information currently available does not support the changes to the law proposed by the petitioner.

# **Summary of Submission**

- 8. The petition seeks that the House recommend a change to the New Zealand Road Rules to allow cycling on the footpath by children under 14 years of age (and accompanying adults), seniors over the age of 65, and vulnerable users (such as those with mental or physical disabilities); make bells mandatory for any bicycle used on footpaths or shared use paths; and allow local authorities to exclude, on a reasonable basis, certain areas of footpath from being used for cycling.
- 9. Allowing the footpath cycling proposed by the petitioner is likely to diminish accessibility and perceived safety for pedestrians and unlikely to deliver increased safety for cyclists.
- 10. The changes proposed by the petitioner do not advance the competency of young cyclists or provide a means to ensure that young cyclists have the skills to use the road safely.
- 11. Amending the Rule to permit anyone under the age of 14 years of age (and accompanying adults), seniors over the age of 65, and vulnerable users to ride on footpaths has the potential to create a situation where cycling on footpaths becomes normalised for all ages.
- 12. Introducing legal exemptions and exclusions that cannot be readily distinguished by an observer, such as being over 65 or under 14 or having a disability, causes confusion for the public and makes the task of enforcement much more difficult.
- 13. The potential speed differential between cyclists and elderly or disabled pedestrians on footpaths is significantly greater than for cyclists and motorists on most urban roads; the risk of collision has been shown to be significant for cyclists on footpaths, too.
- 14. Pedestrian-cyclist conflict is recognised as an inevitable consequence of allowing cycling on a footpath. Where cyclists share footpaths with pedestrians, this increases the risk of injury not just to the elderly, but also to hearing or vision-impaired or otherwise vulnerable pedestrians, through falls and collisions. Fear of a collision will make them feel unsafe on shared facilities. This can deter these pedestrians from using footpaths, reduce their activity and contribute towards increased social isolation.
- 15. The modal choice available to these footpath users is frequently very limited and the pedestrian network is critical to their continued independent social or economic participation in the community. Allowing more widespread footpath cycling by older children and a range of adults extends the choice available to these cyclists, but at the potential cost of a loss of opportunity for pedestrians who have no alternative to footpaths for mobility to continue to lead independent lives.
- 16. A far clearer understanding of the potential costs and consequences of such a significant change to the Road User Rule is needed. Research is being done currently on the impacts of allowing cycling on footpaths and any policy in this area needs to be fully informed by all available research and by local studies in particular.

### Introduction

- 17. There has been increasing interest in more active modes of personal transport and in particular in cycling in New Zealand. This is reflected in strong customer demand, strong political support and strong interest from all major councils. Active personal transport modes are seen to support a more effective transport system, provide for transport choice, contribute to more vibrant and connected communities, enable tourism and regional economic development, and deliver better individual health.
- 18. Walking and cycling are, therefore, an increasing component of providing travel choice in an integrated transport system. This has been recognised by the government with a substantial increase in investment and strategic priority.
- 19. The government's Road Safety Strategy 2010-2020, as set out in the Safer Journeys document, invokes the principles of a Safe System to minimise death or serious injury in the event of a crash. Walking and cycling are considered a medium priority in the Safer Journeys strategy, which looks to achieve a reduction in the crash risk for pedestrians and particularly cyclists, while at the same time encouraging an increase in use of these modes through safer roading infrastructure.
- 20. In recent years, there has been increasing use of footpaths by wheeled modes, such as mobility scooters, alternative personal mobility devices and cyclists. Footpath users, including the elderly and those with impaired sight and hearing, or mobility disabilities, are increasingly encountering situations where they must share facilities with cyclists or motorised devices.
- 21. In almost every case a footpath not purposefully designed to be shared, but shared by multiple modes, delivers a reduced level of service and greater risk of injury to users. That risk of injury can be perceived as unacceptable by the most vulnerable pedestrians, causing them not to use shared footpaths.

# **Riding on footpaths**

- 22. Children are being encouraged to cycle more, and may do so on a footpath if their bicycle wheels are no more than 355mm (14 inches) in diameter. A bicycle that has a wheel diameter not exceeding 355 mm meets the definition of a wheeled recreational device and is able to use a footpath. Bicycle wheel size is used as an analogue for user age.
- 23. Police generally turn a blind eye to responsible footpath riding by children with larger wheels, recognising that requiring a young child to ride on the road might lead to tragic results. At present the New Zealand Police and New Zealand Transport Agency recommend that "children under 10 years old cycle on the road only when accompanied by a competent adult rider". This recommendation has been adopted and promulgated by SafeKids New Zealand.
- 24. Although most children graduate to a medium wheel-size of 505mm (20 inches) around age 6, they are generally not ready to cycle on the road until age 10 or 11. A recent University of Otago study of almost 300 pupils aged 8-12 at four Central Otago primary schools found that

- many children aged under 11 are unable to complete a practical cycling skills assessment.<sup>1</sup>
- 25. Tested on their ability to start, perform turning and stopping signals for at least three seconds, and to look over their right shoulder and identify a potential hazard, while maintaining control and without straying outside the lines of a model cycle way, 25.6% of eight-year-olds and around 23% of 10-year-olds were found to be unable to complete the assessment without losing control of their bicycles or veering out of the cycle lane. In contrast, the percentage of those aged 11 and 12 able to complete the tasks safely was 91% and 93%, respectively.
- 26. Most western countries appear to restrict footpath cycling to young children, but New Zealand appears to be unique in restricting footpath cycling based on wheel diameter. France and Belgium allow children up to age 8 to ride on footpaths and Germany *requires* children up to age 8 to ride on the footpath and *allows* children aged 9 and 10 to ride on the footpath. In Finland children up to age 12 may ride on the footpath. In contrast, in the Netherlands, the UK and Ireland nobody is allowed to cycle on the footpath, but the rule is not enforced for young children.
- 27. In Australia the rules for footpath riding vary from state to state. Some states allow riding on the footpath, regardless of age, unless signs state otherwise, while others allow children under the age of 12 to ride on the footpath, and allow an adult to ride on the footpath if they are accompanying a child under the age of 12.
- 28. The petition seeks to allow children up to 14 years of age to use the footpaths. There is a significant difference in development and weight between 10-year olds, 12-year olds and 14-year olds, for example:
  - 10-year old boys: 50% < 32kg, 25% > 36kg and 10% > 42kg
  - 12-year old boys: 50% < 41kg, 25% > 47kg and 10% > 54kg
  - 14-year old boys: 50% < 51kg, 25% > 58kg and 10% > 67kg<sup>2</sup>
- 29. The development between ages 10 and 14 means the speed at which a 10-year old will ride will also normally be slower than for older children, for boys in particular. This difference in both weight and speed means that the kinetic energy involved in a collision with a 10-year old is many times less than that for a 14-year old.
- 30. The speed differential between the users of a path is critical to both the actual and perceived safety of its users. A study in New South Wales found no difference in cyclist speeds between footpaths and local roads with a posted speed limit of 50kmph.<sup>3</sup> Cyclists travelled on both at a mean speed of 21kmph. Another study of cyclists in Queensland observed a mean road speed of 29kmph, a mean speed on a shared path of 21kmph and a mean speed on footpaths of only 11kmph.<sup>4</sup>

<sup>&</sup>lt;sup>1</sup> Bromell, RJ (2016) Children on Bicycles – How Safe Are They? Report to Child Injury

<sup>&</sup>lt;sup>2</sup> National Centre for Health Statistics (2000) Stature-for-age and Weight-for-age percentiles

<sup>&</sup>lt;sup>3</sup> Grzebieta R, McIntosh A, Chong S, (2011) Pedestrian-cyclist collisions: issues and risk. Australasian College of Road Safety Conference, Melbourne, 1-2 September 2011

<sup>&</sup>lt;sup>4</sup> Haworth, N.L., Schramm ,A.J. (2014) What happens when walkers and cyclists share the space? CARRS-Q, Walk21 Conference, Sydney, 21-23 October 2014

- 31. These speeds may be broadly described as 5.8m/second (21kmph) and 3.1m/second (11kmph). Research in the UK established the mean walking speed of men aged over 65 as 0.9m/sec (3.2kmph) and of women aged over 65 as 0.8m/sec (2.9kmph). Thus, for a woman over 65 walking on a path being used by cyclists almost 14-years old, the speed differential could be up to 5.0m/second, or range from 3.87:1 up to 7.25:1. For comparison, the speed differential for a cyclist travelling at 29kmph beside traffic travelling at 50kmph is 1.724:1.
- 32. The potential speed differential between cyclists and elderly or disabled pedestrians on footpaths is not only significantly greater, the potential for collision has been shown to be significantly greater on footpaths, too. A 2011 Brisbane study found that 46.5% of cyclists riding on the footpath were likely to have one or more pedestrians within a 1m radius.<sup>6</sup>
- 33. The rapid uptake of power assisted bicycles by both younger and older cyclists needs to be considered, too, in deciding whether these cyclists would use footpaths at speeds that would not constitute a hazard to others.
- 34. The petition seeks to allow cycling on the footpath by adults accompanying children under 14 years of age, seniors over the age of 65, and vulnerable users (such as those with mental or physical disabilities). Where an adult may need to supervise a young child cyclist, there are risks associated with adults riding on the road while supervising young children riding on the footpath. The adult's attention is split and communication is difficult. In these situations, many adults choose to cycle on the footpath when supervising a child.
- 35.International practice is generally not supportive of adults cycling on the footpath, but four Australian states have now made it legal for an adult to do so. Some parts of the USA also allow adults to ride on footpaths.
- 36. In considering any change to New Zealand restrictions on riding on the footpath, authorities will need to remain conscious of the potential to enforce any regulation. While it is simple to verify the diameter of a wheel, a practical means to verify the age of a cyclist is not readily available without requiring cyclists to carry proof.
- 37. Similarly, providing a definition of "accompanying adult" that could meet the reasonable expectations of friends and families, but exclude any adult who simply chose to ride behind a child cycling on a footpath, and making that distinction apparent to an observer, would be challenging. Defining a practical legal test for vulnerability that did not involve asking if the cyclist has a disability (and proof) would also raise broader civil rights issues. Introducing legal exemptions and exclusions that cannot be readily distinguished by an observer causes confusion for the public and makes the task of enforcement more difficult.

Territory)

<sup>&</sup>lt;sup>5</sup> Asher L, Aresu M, Falaschetti E, Mindell J, (2012) Most older pedestrians are unable to cross the road in time: a cross-sectional study. Age and Ageing 41(5)

<sup>&</sup>lt;sup>6</sup> Haworth NL, Schramm AJ, (2011) Adults cycling on the footpath: what do the data show? Australasian Road Safety Research, Policy and Education Conference, Perth, 6-9 Nov. 2011 <sup>7</sup> Queensland, Tasmania, Northern Territory, Western Australia (and Australian Capital

## Effect on Pedestrians: the Elderly

- 38. Cycling on footpaths increases the risk of injury to all users, but appears to increase the risk particularly for elderly pedestrians. Provision of safe travel options that allow easy access to services and amenities is seen as vital for maintaining quality of life for the elderly. The need is to ensure greater independence for the elderly and avoid putting them at greater risk as footpath users.
- 39. The elderly will form an increasing proportion of the New Zealand population for much of the remainder of this century. The population aged 65 years and over has increased from 11% of the total population in 1991 to 13% in 2009. It is expected to reach 21% by 2031. The number of people aged 65 years and over is projected to increase from around 550,000 in 2009 to 1 million in the late 2020s, when they will outnumber children.8
- 40.By 2031, the last of the "baby boomers" will have turned 65 and the first will begin turning 85, so that the ageing of the population aged 65 years and over will accelerate. The number of people aged 85 years and over is projected to increase from 67,000 in 2009 to 144,000 in 2031, then more than double to about 330,000 by 2061. By 2061, people aged 85 and over will make up about one in four of the population aged 65 years and over, compared with one in eight in 2009 and 2031.
- 41. Travel on foot is relatively more important for older people and of particular value for their health and longevity. The 2001 New Zealand Positive Ageing Strategy identified community participation as an important element of positive ageing, related to greater life satisfaction and perceived quality of life. There is compelling evidence to support the health benefits of physical activity, especially for older adults, and walking, the most common form of physical activity, especially for older adults, can make a great difference to overall health.
- 42. Seniors currently experience relatively high rates of chronic diseases and fall injuries that impact on their health, wellbeing and quality of life, and present a growing challenge for the provision of accessible and affordable health care services. Rates of several of these age-related health conditions can be reduced by increased physical activity. Physical activity levels among senior adults tend to decline with age, but walking tends to decline less rapidly. Walking tends to be the most popular form of sport and physical recreation among adults aged 35 years and older, with participation rates increasing up to the age of 64 years.<sup>10</sup>
- 43. In addition to the health benefits of physical activity, walking for transport has additional health, well-being and community benefits associated with reduced car use. These benefits include improved air quality, reduced traffic congestion, improved social connectedness and community "liveability" and improved mobility for people who do not

<sup>&</sup>lt;sup>8</sup> Statistics New Zealand (2009) Impact of structural population change

<sup>&</sup>lt;sup>9</sup> Garrard J, (2013) Senior Victorians and walking: obstacles and opportunities. Final Report, Victoria Walks

<sup>&</sup>lt;sup>10</sup> ibid.

- drive cars. 11 Walking becomes an increasingly important form of personal mobility as people age and their car use declines.
- 44. One of the constraints on seniors walking is traffic-related injury risk. Most research has had its focus on injury prevention, rather than barriers to walking, although the two are inter-related with both actual and perceived risks affecting walking participation.
- 45. Pedestrians are at greater risk of traffic-related injury than motor vehicle occupants, and older pedestrians experience more, and higher severity, injuries than younger adults. People aged 70 or older made up 12.5% of pedestrian casualty figures in 2012 and 11.4% in 2013. Reduced mobility and reaction times make older people more vulnerable to injury. Accidents as pedestrians, or fear of such accidents, deterring seniors from using streets and roads, reduces their activity and can contribute to social isolation.
- 46. Countries with the lowest rates of pedestrian fatalities also have relatively high rates of walking, including among older adults, indicating that it is possible (as well as desirable) to improve both the prevalence and the safety of walking among older adults.
- 47. While older pedestrians are largely held responsible for traffic-related collisions and injuries, and exhorted to "take more care on the roads", observational studies of pedestrian behaviour indicate that older adults are more careful, cautious and law-abiding pedestrians than younger adults. Consistent with older adults' generally cautious use of the road system, 'unexpected' events, such as bicycles passing at high speed on shared paths, can be a source of concern.
- 48. Although injury data and observational studies suggest that such incidents currently cause relatively little actual injury harm to pedestrians, the risks are greater for older pedestrians and this perceived risk can be more intimidating for them. The observational studies also indicate that such incidents can be frequent:

Five near collisions were observed, and 53 survey participants reported 2 collisions and 13 near misses.<sup>14</sup>

49. Just as it is the perceived risk of roads that causes parents to want to keep their children from cycling on them, perceived risks need to be addressed in considering the effect on pedestrians. Any increase in the numbers of cyclists on footpaths, especially older and therefore heavier and faster-moving cyclists, will not make walking safer, less stressful or more pleasurable for seniors.

<sup>&</sup>lt;sup>11</sup> Litman T, (2013) Transportation and public health. Annual Review of Public Health 34

<sup>&</sup>lt;sup>12</sup> World Health Organisation (2013) Pedestrian safety: a road safety manual for decision-makers and practitioners. Geneva, WHO.

<sup>&</sup>lt;sup>13</sup> Ministry of Transport Crash Statistics: Pedestrians

<sup>&</sup>lt;sup>14</sup> Hatfield, J., & Prabhakharan, P. (2016). An investigation of behaviour and attitudes relevant to the user safety of pedestrian/cyclist shared paths. Transportation research part F: traffic psychology and behaviour, 40, 35-47.

### Effect on Pedestrians: Those with Disabilities

- 50. Where cyclists share footpaths with pedestrians, this increases the risk of injury not just to the elderly, but also to hearing or vision-impaired or otherwise vulnerable pedestrians, through falls and collisions. Fear of a collision will make them feel unsafe on shared facilities. Studies in New Zealand have supported findings from Australia that found that a third of pedestrians on shared paths have been frightened by a cyclist travelling too fast, too close.<sup>15</sup>
- 51. In 2015, CCS Disability Action and TDG completed a survey of peoples' views of transport in New Zealand, with a focus on people with a disability. <sup>16</sup> The comments received in that survey highlighted perceptions about safety and amenity that affect use of pedestrian infrastructure, and two are representative of the many:

"I am unhappy about the numbers of bicycles being ridden on the footpath as though every footpath is a shared cycle and pedestrian path. Even on shared paths I will often walk on the grass rather than compete with bicycles approaching without warning, from behind especially, and at speed. I would hate to have my future mobility curtailed by being hit by a bike."

"Sometimes I get scared because people come too close to me and I end up falling."

52. The international literature is unequivocal on the effect of pedestrians being required to share a footpath with cyclists, as for example:

"Cyclists should refrain from riding past persons with disabilities, the elderly, young children and pregnant women..."

17

- 53. People with disabilities, irrespective of age, have very similar patterns of risk aversion towards footpaths shared with cyclists. They are also generally reliant on pedestrian networks as their primary mode of transport. The modal choice available to these footpath users is frequently very limited and the pedestrian network is critical to their continued independent social or economic participation in the community. Sensory, cognitive or physical impairment that limits mobility tends to correlate with socio-economic disadvantage and poverty, which in turn will influence or determine transport choices.
- 54. The issue of people who rely on pedestrian access as the foundation of their mobility, in any combination of modes, in order to obtain the essentials of life, such as food, medical care, work and recreation, has not been considered in depth. While there is significant investment in understanding the trip generation of people who use vehicles for mobility, the same understanding of how people without access to a vehicle make their trips is lacking.

 $<sup>^{15}</sup>$  Garrard J, (2013) Senior Victorians and walking: obstacles and opportunities. Final Report, Victoria Walks

<sup>&</sup>lt;sup>16</sup> Burdett, B. (2015) Kiwi Transport Survey 2015

<sup>&</sup>lt;sup>17</sup> Tokuda, K. (2001) Road transport barriers encountered by people with travel difficulties in Japan. IATSS research, 25(1), 12-22.

- 55. In particular, a robust understanding of the people who are *not* using footpaths shared with cyclists is absent. These people might be excluded from using a shared footpath due to inadequate design, actual or perceived safety issues or behaviour by other users that didn't take into account the mobility requirements of people with disabilities. For persons with vision or hearing impairment, cognitive or mobility impairment or greater physical frailty, the risk of an encounter with a cyclist using a footpath can be perceived as too high, leading to a choice by some to remain inside.
- 56. The social impacts of exclusion and consequent isolation, and the impact on the quality of life experienced by people if they become incapable of accessing pedestrian infrastructure have not been properly assessed. Similarly, the economic benefits accrued to society if people could equally easily participate in society regardless of whether they had independent access to a vehicle or not have not been calculated.
- 57. The RCA Forum Shared Footpaths Group is steering research to provide data on participation for footpaths. This research, being undertaken in part through the University of Waikato, includes an analysis of the approaches to valuing a footpath for someone lacking mobility alternatives. If use by persons with a disability is considered only in terms of safety, the benefit-cost is defined by the value of life or limb, suffering or damage. For persons without a disability, use of a transport asset is usually considered in terms of mobility benefits access to desired destinations, time savings, increased comfort and increased convenience. These same user benefits of mobility for someone with a disability can include better health, access to education and access to employment.
- 58. Participation in daily life by those with a disability can deliver improved physical and psychological health, and significant savings in social care needs. Allowing more widespread footpath cycling by larger children and a range of adults extends the choice available to these cyclists, of using either the road or the footpath, but at the potential cost of a diminution in safety and opportunity for pedestrians with no alternative to footpaths. This is a significant equity issue.
- 59. As a first principle, transport should be inclusive; all people should be able to participate, even if they have no legs or sight, even if they feel uncomfortable in crowds, even if they are from a different country and don't speak the local language; whether they are a child or 102 the transport system should work for them.
- 60. Great care must be taken to avoid a decision that would seek to improve the safety of one group by reducing the amenity of another.

## **Effect on Cyclists: Safety**

61. The petition seeks a change to the Rule to allow cycling on the footpath by children under 14 years of age (and accompanying adults), seniors over the age of 65, and vulnerable users (such as those with mental or physical disabilities), as the footpath is perceived as being safer to ride on than the road.

<sup>&</sup>lt;sup>18</sup> "Willingness to pay and value of a trip on footpaths and shared paths in New Zealand"

62. Survey findings from numerous studies suggest experienced cyclists do not advocate cycling on footpaths and that it is non-cyclists, inexperienced cyclists, who are not prepared to ride on roads, and parents of young cyclists who seek access to the footpaths for cycling, because they perceive the road as less safe. The weight of the international literature on this topic disagrees emphatically with this assessment:

"Purpose-built bike-only facilities (paths, lanes, cycle paths, etc) reduce the risk of crashes and injuries compared with on-street or sidewalk cycling" ... "sidewalk cycling is more than twice as hazardous for cyclists than riding on the road" 19

"Streets with bike lanes have a significantly lower crash rate then either major or minor streets without any bicycle facilities (38 and 56% respectively). Multi-use trails have a crash rate about 40% greater than would be expected based on the miles cycled on them while cycling on the sidewalk is extremely dangerous."<sup>20</sup>

- 63. The NZ Transport Agency's Crash Analysis System has records of 20,737 incidents involving cyclists, pedestrians, skateboarders or mobility scooters. Of these, 51% (10,589 incidents) involved cyclists falling off with no other party involved. Of 1,065 incidents that involved cyclists riding on the footpath, only 14 involved a collision with a pedestrian, with no fatalities, but seven incidents resulted in serious injuries.
- 64. This collision rate appears potentially acceptable, but considered in terms of likely vehicle kilometres travelled for each crash and the likely level of reporting of cyclist-pedestrian collisions in CAS, the CAS data are comparable to findings from overseas studies that found that footpaths are the least safe place to cycle.
- 65.A 1997 survey of 2374 cyclists from across the USA and Canada to collect data on number of kilometers ridden, percentage of use of bike facilities, and number of crashes according to type of facility, calculated a relative danger index (RDI) for various bicycle facilities that related accident frequency to distance traveled on each facility type:

"A higher number indicates greater danger. Based on the data in this sample, major streets without bicycle facilities have an RDI of 1.26; minor streets, an RDI of 1.04; streets with bike lanes or bike routes, an RDI of 0.50; bike paths, an RDI of 0.67 and sidewalks, an RDI of 5.30."<sup>21</sup>

66. Other studies have arrived at opposite conclusions, but the consensus of the international research is that great care should be taken in putting cyclists onto footpaths not designed to be used by cyclists.

<sup>&</sup>lt;sup>19</sup> Sullivan, D. (2012). An Economic Analysis of Bicycling in Boston, Massachusetts.

<sup>&</sup>lt;sup>20</sup> Moritz, W. (1998). Adult Bicyclists in the United States – Characteristics and Riding Experience in 1996, Transportation Research Board

<sup>&</sup>lt;sup>21</sup> Moritz, W. (1997). Survey of North American Bicycle Commuters: Design and Aggregate Results, Transportation Research Board

## **Effect on Cyclists: Infrastructure needs and strategies**

67. Providing wider footpaths and keeping cyclists and pedestrians separate was a key recommendation in a 2007 study by Victoria University on improving the safety of older pedestrians. This reflected UK DoT recommendations on improving walking safety made seven years earlier. It also reflects the weight of evidence of the international literature on improving cycling safety and cycling participation:

"A review of 23 studies on bicycling injuries found that bike facilities (e.g. off-road paths, on-road marked bike lanes, and onroad bike routes) are where bicyclists are safest."<sup>24</sup>

"A survey of Australian adults found that three in five have access to a bike, but many don't ride at all or as much as they want to due to road and safety issues. Respondents said that separated bike paths would encourage them to start riding at all or more often." <sup>25</sup>

"The safest bicycle routes in Vancouver, BC, and Toronto were found to be cycletracks on major streets, local streets with traffic diversion, and off-street bike paths." <sup>26</sup>

"Men and women's perceptions of safety and of the feasibility of bicycling differ; women are more sensitive to the absence of bike lanes and trails." <sup>27</sup>

- 68. More significantly, any move to shift more cycling onto footpaths and off the road is contrary to the established priorities for achieving an acceptance of cycling as a normal mode of transport. A "five-step hierarchy" of physical measures that could be adopted to improve any cycling route was proposed by the Chartered Institution of Highways and Transportation (UK) in 1996.<sup>28</sup> In order of priority, the IHT advocated:
  - a. Reducing traffic volumes
  - b. Reducing traffic speeds
  - c. Intersection treatment and traffic management
  - d. Reallocation of carriageway/corridor space
  - e. Separate cycle facilities

<sup>&</sup>lt;sup>22</sup> Wilton, V. & Davey, J.A. (2007) Improving the Safety of Older Pedestrians. John Bailey Road Safety Research Fund. New Zealand Institute for Research on Ageing, Victoria University of Wellington

 $<sup>^{\</sup>rm 23}$  UK Department for Transport (2001) Recommendations for improving the physical walking environment

<sup>&</sup>lt;sup>24</sup> Reynolds, C. et al. (2009) The impact of transportation infrastructure on bicycling injuries and crashes: a review of the literature, Environmental Health, 8:47

<sup>&</sup>lt;sup>25</sup> Cycling Promotion Fund (2011) Riding a Bike for Transport: 2011 Survey Findings

<sup>&</sup>lt;sup>26</sup> Teschke, K. et al. (2012) Route Infrastructure and the Risk of Injuries to Bicyclists, American Journal of Public Health, Volume 102

<sup>&</sup>lt;sup>27</sup> Akar, G., Fischer, N., and Namgung, M. (2013) Bicycling Choice and Gender Case Study: The Ohio State University, Int. J. of Sust. Trans., Volume 7, Issue 5

<sup>&</sup>lt;sup>28</sup> Institution of Highways and Transportation (1996) Cycle-friendly infrastructure: guidelines for planning and design

- 69. The IHT concluded that reduced traffic density and a lower speed differential would make any road more attractive for cycling. It also decided that many road corridors have more than enough room to cater for cyclists, particularly if under-used or over-sized traffic/parking lanes are removed or modified. Shared facilities like bus/bike lanes were another alternative. The IHT considered that borrowing footpath space from pedestrians was a less preferable option.
- 70. Only if the higher priority approaches were not able to produce a viable solution did the IHT recommend the specific provision of separate cycle lanes and off-road paths. Nevertheless, in the face of public resistance to proposals to reduce traffic volumes and speed, or reallocate road space, many projects now underway are grappling with the challenges of providing separated facilities. It can be tempting to see footpaths as offering an easy alternative.
- 71. The petition seeks to allow local authorities to exclude, on a reasonable basis, certain areas of footpath from being used for cycling. The law currently permits a road controlling authority to designate a footpath as a shared path if it meets minimum standards and where it will not disadvantage existing users. This can address situations where cycling on the road is perceived to be unsafe (e.g. parents will typically forbid young children from riding to school or the park on busy arterials). This requirement for minimum standards should be considered very carefully in the context of this petition.
- 72. The proposal for access to footpaths for the least experienced or most vulnerable cyclists is in its effect advocating a reduction of the minimum standards for a path shared by cyclists and pedestrians, and increasing the risk for both. Footpaths vary greatly in their specifications and maintenance standards and already many footpaths are not universally accessible in their current state. Surface unevenness, trees, poles, benches, utility cabinets and bins are potentially more hazardous for inexperienced cyclists, travelling at two to three times the design speed of the footpath, than for pedestrians. The forward visibility and sight lines for corners and potential conflict points, including almost all vehicle entrance or exits across the footpath, are generally appropriate only for a pedestrian speed.<sup>29</sup>
- 73. A significant investment is required for many footpaths to meet adequate design standards for being shared paths. Corners and potential conflict points need to be widened. Better lighting is needed to allow cyclists to see pedestrians and any dogs or their leads, if there is any possibility that the footpath will be cycled on outside the hours of daylight, such as after mid-winter after-school activities. Better signage and warning markings, and higher maintenance standards, are required.<sup>30</sup>
- 74. Any increase in the numbers of cyclists approaching intersections along footpaths is also likely to exacerbate the existing problems with cyclists and turning vehicles. While a child cycling on the road is less visible

<sup>&</sup>lt;sup>29</sup> NZ Post representatives have cited the high accident rates as one reason for moving away from the use of cyclists for deliveries.

<sup>&</sup>lt;sup>30</sup> Mellifont D, Ker I, Huband A, Veith G, Taylor J, (2006) Pedestrian-cyclist conflict minimisation on shared paths and footpaths. Austroads Research Report AP-R287/06.

than other road users, that child cycling on the footpath behind parked cars is likely to be totally invisible to the driver of any vehicle intending to turn.

- 75. Austroads investigated actual and potential conflicts between cyclists and pedestrians, and recommended strategies to minimise conflict and to improve both perceived and actual safety on shared paths and footpaths in 2006.<sup>31</sup> Pedestrian-cyclist conflict was recognised as an inevitable consequence of allowing cycling on a footpath. The principal causes of such conflict are the contradiction in normal behaviour for a footpath and for a vehicle lane. This includes people walking side-by-side, stopping to chat, wearing headphones, having a dog on a lead and not wearing high-visibility clothing when going for a walk.<sup>32</sup>
- 76. The report noted that the quiet nature of cycling and the use by pedestrians of headphones are contributing factors to conflict on shared paths. It also summarised the specific behaviours that contribute to conflict. Cyclists were considered to contribute to conflict on shared paths through:
  - individual cyclists passing too close at relatively high speed a function of a basic desire to maintain speed either in training, recreation or commuting;
  - similar action by groups (at the extreme, a peloton);
  - failure to warn pedestrians of their approach or intention to pass; and
  - · excessive speed in inappropriate situations.
- 77. Pedestrians were considered to contribute to conflict on shared paths through:
  - individuals failing to keep to the left and to maintain a predictable path;
  - groups occupying the width of the path;
  - children not being adequately supervised;
  - use of other modes (powered scooters, roller blades, roller skis); and
  - dogs not being kept under control.
- 78. These findings suggest that many of the normal social interactions and activities encountered on footpaths become inappropriate on a shared path, which should be considered more as another thoroughfare within the road. There is potentially a substantial diminution in social function, however, if a footpath is treated as a traffic lane.
- 79. The Austroads report reinforced many of the findings of a 1998 OECD Scientific Expert Group on the Safety of Vulnerable Road Users (RS7) report on 'Safety of Vulnerable Users' that found that pedestrian-cyclist conflicts were generated mainly by narrow footpaths, narrow cycletracks, relatively high speeds of cyclists, poor visibility, or considerable age difference between cyclists and pedestrians. That report noted that while few conflicts were dangerous, the danger increased when several of these factors were combined.

32 Austroads (2006) AP287/06

<sup>31</sup> Ibid.

- 80. Although the One Network Road Classification recognises footpaths, with roads and bridges, as system outputs and notes their maintenance is a direct infuence on safety and accessibility, under the Funding Assistance Rate, however, local authorities get co-funding for maintenance of shared paths, but maintenance of footpaths is a non-subsidised activity.
- 81. The RCA Forum has not seen any calculation of the co-funding cost for capital works to improve footpaths to meet an adequate standard for shared use, or for annual maintenance and renewal expenditure on footpaths used as shared paths, if all footpaths in effect become shared paths. A maintenance budget of \$800,000 and renewals budget of \$2.5 million is not unusual for a city of 100,000. This indicates a rough cost calculation of \$33 per capita.
- 82. A consequence of the changes sought by this petition could be a reduced incentive for local councils to commit funding to improving facilities for cycling on roads. Based on overseas experience, providing older cyclists with the right to ride on footpaths is interpreted by the motoring public as removing the right of cyclists to ride on roads.

## **Mandatory bells**

- 83. The petition seeks to make bells mandatory for any bicycle used on footpaths or shared use paths. As the Austroads report noted, any audible warning device will be unheard by those with impaired hearing through either disability or choice (by wearing headphones), but is of itself a potential source of conflict.<sup>33</sup>
- 84. The sounding of a bell can startle, but it also can be interpreted by cyclists as giving the cyclist priority, and by pedestrians as demanding priority, and can inflame any pre-existing territorial tensions between the two modes likely to arise from changing from a prior use as a footpath to use as a shared path.
- 85. While mandatory bells on bicycles is not opposed, consideration would need to be given to an extensive and sustained public education effort to ensure that all parties understood their use and that cyclists were aware of their potential limitations.

#### Conclusion

86. This petition seeks to allow cycling on the footpath by children under 14 years of age (and accompanying adults), seniors over the age of 65, and vulnerable users (such as those with mental or physical disabilities); to make bells mandatory for any bicycle used on footpaths or shared use paths; and to allow local authorities to exclude, on a reasonable basis, certain areas of footpath from being used for cycling. Until the research currently being undertaken on the wider effects of cycling on footpaths has been completed, we are not in a position to say that the changes being sought have the potential to offer significant benefit without causing significant social harm. The effects on the elderly and those with disabilities have not been properly considered.

<sup>33</sup> ibid.

- 87.A broader conversation on participation is needed to entrench recognition of a hierarchy of road space users that places those with the least mobility choice at the apex. This petition proposes changes to the regulatory environment that would not assist participation or recognition of this hierarchy.
- 88. For the reasons set out in this submission, the RCA Forum submits that the House does not recommend a change to the New Zealand Road Rules to allow cycling on the footpath by children under 14 years of age (and accompanying adults), seniors over the age of 65, and vulnerable users (such as those with mental or physical disabilities).
- 89. The RCA Forum does not oppose making bells mandatory for any bicycle to be used anywhere within the road corridor.
- 90. The RCA Forum is supportive of any proposal that would allow local authorities to include or exclude, on a reasonable basis, certain areas of footpath being used for cycling.
- 91. The RCA Forum thanks the Select Committee for the opportunity to make this submission.