

**INQUIRY INTO PEDESTRIAN SAFETY
(MINISTERIAL REFERENCE)**

Organisation: North Sydney Council
Name: Cr Genia McCaffery
Position: Mayor
Date Received: 3/07/2009

THIS PAGE INTENTIONALLY BLANK

Staysafe (Joint Standing Committee on Road Safety)
Parliament House
Macquarie St
SYDNEY NSW 2000

2 July 2009

Dear Sir/Madam

RE: PARLIAMENTARY INQUIRY INTO PEDESTRIAN SAFETY

Thank you for providing North Sydney Council with the opportunity to make a submission to the Parliamentary Inquiry into Pedestrian Safety.

North Sydney Council is 10.9 km² with 62,000 residents and 51,000 employees as well as visitors to the area. This large population within such a small area creates numerous traffic and transport issues and inevitably leads to conflicts in access and safety between vehicles and pedestrians.

All journeys, by any mode, begin and end with walking. Council's strategic 2020 Vision document outlines an objective for pedestrians and cyclists to enjoy easy and safe access throughout North Sydney. Council has for a number of years had a Pedestrian Committee which seeks to improve access and safety for pedestrians, in consultation with the community.

Most of the discussion in this submission is focussed on North Sydney. However, it is likely that many of the issues found in North Sydney would also be experienced elsewhere.

Pedestrian Accidents in North Sydney

North Sydney Council is greatly concerned about the number of accidents involving pedestrians. On average from 2003 to 2007, the North Sydney LGA had a significantly higher number of pedestrian casualties (17%) compared to NSW (9%) and the Sydney Region (11%).

North Sydney has the following accident history:

Year	Total Accidents	Casualty Accidents	Pedestrian Casualties
2007	410	200	34
2006	391	206	35
2005	423	200	32
2004	459	216	41
2003	496	233	42

From 2003 to 2007 there was one pedestrian fatality.

In North Sydney in 2007 there was a cluster of pedestrian crashes within the North Sydney CBD, particularly on major roads, where high pedestrian numbers can be found and there are also high volumes of motor vehicles. Particular streets include Falcon Street, Military Road, Miller Street and the Pacific Highway. 73% of crashes occurred on weekdays between 7.30am and 6.30pm when pedestrian activity is high with people travelling to and from work, school children and shoppers. Of all the vehicles that hit pedestrians, 20% of controllers were distracted by something outside the vehicle, however none were speeding or fatigued.

The North Sydney Road Safety Action Plan for 2009 identifies pedestrians as one of the key road safety issues.

Pedestrian Access at Signalised Intersections

Green Time

Traffic signals in North Sydney are generally phased to allow for the most efficient movement of vehicles through the intersection. There is a high level of pedestrian frustration at the lack of “green time” for pedestrians at signalised intersections, particularly on busy regional and state roads. The perceived waiting times for pedestrians is generally twice the actual waiting time at traffic signals. Waiting pedestrians are generally exposed to the weather and elements such as rain and heat, whilst most motorists are in air-conditioned comfort with their sound system playing.

On-site observations reveal that frustration at waiting for traffic signals results in numerous pedestrians choosing to “run the red”.

One of example of a lack of green time is the intersection of Berry Street and Miller Street, North Sydney. This intersection is a key through travel route for pedestrians in the North Sydney CBD, particularly to and from public transport. Berry Street also functions as a State Road and is a primary feeder road from North Sydney onto the Warringah Freeway. The traffic signals have been phased to maximise the through vehicles on Berry Street and southbound left-turning vehicles from Miller Street onto Berry Street and onto the Warringah Freeway. The result is that the green signal time for north-south pedestrians on the eastern side of Berry Street is simply inadequate for the 650 pedestrians who cross on this leg of the intersection in the peak hours. There are two concerns regarding this large number of pedestrians:

- There physically is very little room on the north-eastern side of the intersection in front of the Rag and Famish, resulting in pedestrians queued around the corners and blocking other pedestrian access

- Pedestrians become frustrated at waiting for the traffic signals and cross against the red light. Pedestrians often have to run across the road to avoid conflict with through vehicles on Berry Street who tend to already be “in freeway mode” as they speed onto the Warringah Freeway



Photograph: Pedestrians running the red on the eastern side of the intersection of Miller Street and Berry Street.

Observation show that at many intersections 100 pedestrians are often forced to wait for only 20 vehicles to pass through an intersection. On numbers alone the green time given to vehicles in preference to pedestrians is blatantly inequitable. If Sydney wants to get serious about improving pedestrian access and safety and increasing walking as an alternative transport mode, then additional green phase time must be given to pedestrians at signalised intersections.

Walking has the potential to take demand off congested roads and public transport systems. Pedestrians take up about 1m² of road reserve space when travelling. By comparison, private cars take up about 10m² of road reserve space when travelling or 9.1m² per person travelling by vehicle (where the average is 1.1 people per vehicle in the peak in Sydney).

Another intersection of concern in the North Sydney CBD is the intersection of Miller Street and the Pacific Highway. Again there are very high volumes of both vehicles and pedestrians. This intersection has left turn slip lanes from the Pacific Highway onto Miller Street. Therefore, waiting pedestrians have to perch on small triangular islands whilst waiting to cross at the intersection. These islands are so small that at peak hours, the volume of pedestrians is so great and the delay to pedestrians waiting is so long that pedestrians are often forced to wait in the road carriageway. This clearly has the potential to result in injury as motorists turn around the corner.



Photograph: triangular island at the intersection of Miller Street and the Pacific Highway. Note the pedestrians standing on the carriageway whilst waiting.

Pedestrian Count Down

Perceived waiting times for pedestrians are generally twice the actual waiting time at traffic signals. As stated above, frustrated pedestrians will often choose to run across the road on the red if they perceive that they have been waiting for too long.

In many countries overseas, they have a pedestrian count down timer. This advises the pedestrians of how many seconds they have before the light will turn green. This additional information that they will be permitted to cross the road shortly provides the majority of pedestrians with sufficient tolerance and will stop many pedestrians from choosing to cross on the red signal.

Pedestrian Push Buttons

At many signalised intersections, pedestrians still need to activate the pedestrian push button in order to cross the roadway. If pedestrians arrive at the intersection shortly after the green phase would have commenced for pedestrians, they are forced to wait an entire traffic phase cycle before they get another opportunity to cross the road. Again, this may cause some frustrated pedestrians to choose to run the red rather than wait.

Further, this seems to indicate that cars have an ultimate right to the roadway and pedestrians must “apply” to cross the road. As stated by Danish architect Jan Gehl in the Sydney Morning Herald (9 May 2007), “Crossing the road is a human right,” walkers should not have to apply to cross the road.

Elderly & Less Mobile Pedestrians

The lack of green time at signalised intersections is particularly challenging for elderly and less mobile pedestrians who often cannot physically cross the road in the allotted time available. This includes both the green phase and the flashing red phase. This is particularly the case on wide roads with high vehicle volumes such as Military Road and the Pacific Highway. This places these vulnerable pedestrians under intense pressure to struggle across the road within the allocated pedestrian time.

North Sydney Council and the local State Member had to fight for a number of years to have an additional 2 seconds added to the pedestrian phase across Military Road, at Wycombe Road, Neutral Bay where a pedestrian fatality had occurred.

As the population ages, this problem will continue to be exacerbated.

One-Way Streets

There are many intersections where one or both of the roads are one-way. On the one-way approach side to the intersection, if the vehicles have a red light there are no potential conflicts for pedestrians. That is, there are no left or right turning vehicles which could conflict with pedestrians. Therefore pedestrians should be given a green phase for the entire time that vehicles are stopped, less the clearance time. However, there are numerous intersections where this is not the case, and pedestrians are given extended red lights for no apparent reason. Again, this leads to frustration and pedestrians cross on the red illegally, albeit more safely.

Just one example of this is on the western side of the side of the intersection of Miller Street and Berry Street. Berry Street is one-way eastbound. No vehicles can turn into the western side of Berry Street when the eastbound vehicles have a red signal. Pedestrians green time could readily be increased with no impact on vehicle movements at all.

Scramble/ Diagonal Crossings

Pedestrians who wish to travel in a diagonal direction at an intersection have to wait for two light phases at the vast majority of intersections. By comparison, a vehicle can undertake this change in direction in one manoeuvre. This means that pedestrians are forced to wait for two green phases, increasing delay at the intersection. Scramble/ diagonal crossings allow pedestrians to cross diagonally, decreasing delay.

Scramble/ diagonal crossings are also safer, because all vehicles are stopped. At most intersections, without signalised left and right turn phases and arrows, vehicles must wait whilst pedestrians are crossing the road. There is therefore the potential for conflict if a motorist mis-judges the gap to a pedestrian or does not see the pedestrian.

Pedestrian Crossings on All Sides of the Intersection

The RTA has already released a Technical Direction that states that pedestrian crossings must be installed on all sides of new signalised intersections. This should be expanded so that pedestrian crossing must be retrofitted to all sides of existing signalised intersections as well.

Recommendations

1. That additional green time be provided to pedestrians at signalised intersections to increase access and equitability in comparison with motorists and to facilitate greater tolerance for waiting from pedestrians so they are less likely to cross the road on the red.
2. That additional green time be provided to pedestrians at signalised intersections to facilitate improved access for elderly and less mobile pedestrians.
3. That pedestrian count down timers be installed at signalised intersections to provide additional information and facilitate greater tolerance for waiting from pedestrians so they are less likely to cross the road on the red.
4. That pedestrian push buttons be removed at signalised intersections and all pedestrian signals be activated within each traffic signal cycle so that pedestrians do not have to wait an entire cycle if they just miss the green phase that would have commenced.
5. That the green time for pedestrians on a one-way road approach side of an intersection be reviewed and the green time be extended for the entire vehicular red light, less clearance time.
6. That scramble/ diagonal crossings for pedestrians become the normal practice at the majority of intersections so that pedestrians can travel in a diagonal direction in one phase like motor vehicles and to minimise the chance of conflict between pedestrians and vehicles at intersections.
7. That funding be provided to retrofit pedestrian crossing to all sides of existing signalised intersections to improve pedestrian access.

Regional Pedestrian Links

If walking is to be perceived and actually become a real transport option and alternative to public and private transport, then regional pedestrian links must be improved throughout Sydney.

In North Sydney, there is still a large north-south “missing gap” in the regional network from the Harbour Bridge, through the North Sydney CBD and on to Naremburn.

HarbourLink

HarbourLink is an elevated bicycle and pedestrian shared path with minimal grade, spanning approximately 2 kms from the deck level of the Sydney Harbour Bridge to St Leonards Park and Falcon Street along the Warringah Freeway corridor. The path will bypass the road level issues of steep topography, complex routes and congestion and will link the City's South, East and West with Northern regional cycleways and pedestrian routes.

Naremburn to Ernest Street Regional Bike & Pedestrian Route

As part of the Lane Cove Tunnel Project, bicycle and pedestrian paths were provided along the road corridor which links Willoughby and Naremburn to the north-west of Sydney. There is an obvious gap left in the regional pedestrian and bicycle network, between Naremburn and Ernest Street, Cammeray. If this section were completed, it would link into the Falcon Street facilities, which are under construction by the RTA and into the HarbourLink project, thus finally completing the regional bicycle path between the Harbour Bridge and the north.

The Parking Levy has recently been increased to \$2,000 in North Sydney and Milsons Point. Currently this Levy is restricted for spending on public transport and access to public transport. North Sydney Council believes this funding should also be available for sustainable transport modes such as walking and cycling, particularly large scale regional projects such as that described above.

Recommendations

8. That the State Government give support to the HarbourLink and Naremburn to Ernest regional pedestrian and cyclist projects.
9. That the State Government give support to other important strategic regional pedestrian paths.
10. That the Parking Levy be modified so that funding is available for sustainable transport modes such as walking and cycling, particularly large scale regional projects.

Cities Still Designed for the Car

The width of the road carriageway in well-established areas such as North Sydney is a finite resource. Too often pedestrians are forced to cope with the little space remaining once the road space has been allocated to cars.

Planners and transport planners must undertake a shift in their thinking and recognise pedestrians as performing an important and essential transport role. Pedestrians must be considered upfront when the land for various modes is being allocated. Pedestrians must be able to move efficiently and safely particularly in areas of high demand. The interactions between the various modes means that each transport mode cannot be addressed in isolation, but rather planning for all modes must be undertaken together.

Council has submitted a detailed traffic management plan to the RTA seeking to make major changes to the traffic arrangements in the North Sydney CBD. This involves taking the bulk of the through traffic movements out of the CBD centre and sending cars around via the Pacific Highway/ Arthur Street. This will allow greater public transport interchange in the CBD centre, and create a larger and more friendly space and links for pedestrians and cyclists.

The volume of pedestrians on Miller Street, North Sydney, between Berry Street and the Pacific Highway is very high, and the physical space for them is poor. Further, there is extreme congestion at the two main bus stops on this block of Miller Street. The CBD plan allows for Miller Street to be reconfigured for greater pedestrian space. The Victoria Cross bus stop needs to

be redesigned so there is weather protection for waiting passengers, whilst still allowing through pedestrians to travel past.

Recommendations

11. That the State Government support North Sydney Council's proposed traffic modifications for the North Sydney CBD which seek to allocate additional land to pedestrians and create a more accessible, safe and friendly pedestrian environment.
12. That in general, support be given to the strategic allocation of space to the various transport modes to ensure the overall efficient and safe movement of all passengers through the network.

Shared Zones and High Pedestrian Activity Areas

In order to improve pedestrian safety, the RTA currently has two programs to reduce vehicle speeds, the 10 km/h Shared Zone and the 40 km/h High Pedestrian Activity Area

Research has shown that even a small reduction in speed will lead to substantial reductions in crash and injury risk to pedestrians. The probability of a pedestrian fatality increases from about 25% at an impact speed of 40 km/h to between 80-90% at an impact speed of 50 km/h. A car travelling at 40 km/h instead of 50 km/h can stop in a distance that is around 10 metres shorter. Such distances can be vital in situations of crash avoidance and impact minimisation.

There is a 40 km/h High Pedestrian Activity Area in the North Sydney CBD. This zone is strongly supported by Council as a means to help improve pedestrian safety. Council is currently seeking, through the RTA, to implement similar 40 km/h High Pedestrian Activity Areas in the other retail areas including Kirribilli, Milsons Point, Crows Nest and Neutral Bay.

At the moment, the RTA's guidelines for 40 km/h High Pedestrian Activity Areas require extensive and expensive traffic calming before such zones will be approved. Council is under budgetary constraints and these zones can therefore only be implemented on a prioritised basis.

10 km/h Shared Zones provide pedestrians and vehicles with equal rights to utilise the road pavement. North Sydney has various Shared Zones implemented throughout the municipality. These Shared Zones are installed to provide visual indicators to motorists that this is a different road environment. Such indicators may include traffic calming, paving and a lack of kerb and gutter to delineate between a "road" and "footpath". Segregated areas for vehicles and pedestrians do to an extent encourage vehicles to travel at greater speeds. Where vehicles are forced to share a space and give way to pedestrians, it encourages motorists to be more cautious, to look out for pedestrians and to slow down.

The RTA currently has quite stringent rules for the implementation of new Shared Zones. In particular, the RTA has a requirement that the road have an AADT of generally less than 300 vehicles per day. This is a relatively arbitrary limit, which has not been substantiated. In areas of already slow vehicle speeds, combined with appropriate visual design and environment clues and an ever widening network of Shared Zones, motorists will become more and more used to these areas such that they can operate without incident and with vehicle volumes above 300 per day.

Similar Shared Zones operate comfortably in many European cities and towns and it has led to increasing respect between motorists and pedestrians that they need to share the available space.

Recommendations

13. That the expansion of 40 km/h High Pedestrian Activity Areas be supported as reduced vehicle speeds improve pedestrian safety.
14. That installation of additional Shared Zones be supported as reduced vehicle speeds improve pedestrians safety, and that the guidelines for Shared Zones be modified so that proposed streets and areas are assessed on a case-by-case basis for suitability.

Tunnels

Tunnels such as the eastern distributor and the cross city tunnel should be free to encourage through vehicles to get off the surface roads as far as possible. The surface roads can then be tolled, reducing vehicle volumes, and allowing greater space for pedestrians, cyclists and public transport.

It is acknowledged that this will require significant changes to the contracts with the private operators of these existing tunnels. This is a challenging but not impossible task.

Recommendation

15. That the State Government investigates removing tolls from tunnels and implementing surface improvements for pedestrians, cyclists and public transport.

Marked Pedestrian Crossings and Pedestrian Refuges

North Sydney Council aims to provide crossings and refuges in areas where there are large numbers of pedestrians. Many of these facilities have been in place for many years and were installed under previous guidelines.

The RTA has developed new guidelines for pedestrian crossings and pedestrian refuges which require significant amounts of parking to be removed. In an inner-urban area such as North Sydney, where many residents do not have off-street parking, Council is under significant pressure from residents to retain as much on-street parking as possible.

These new guidelines might be eminently suitable for green field sites where the 85th percentile speeds are 60-70 km/h. However, they are not appropriate in already well-established areas such as North Sydney. The guidelines make no allowances for individual site conditions such as one-way streets, building alignments, fence alignments and vehicle speeds.

Council is under pressure from the RTA and lobby groups to retrofit the new guidelines to old pedestrian facilities. Council is concerned that if these facilities have to be upgraded en masse then residents will request that these existing facilities actually be removed. Council wants to improve pedestrian safety as far as possible, however this should not be at the expense of removing existing pedestrian access points.

Recommendation

16. That the upgrade of existing pedestrian crossings be assessed on a case-by-case basis in accordance with the individual site conditions.

Stopping in Intersections

In North Sydney, particularly in the CBD, it is common for vehicles in congested traffic to advance into an intersection on the orange or red signal. This then makes it difficult for the cross-traffic to get through. It also results in pedestrians being forced to weave unsafely through queued vehicles. Once space becomes available for the recalcitrant motorist, there is then no clear indication to the motorist or pedestrians as to where they should be in the road carriageway and who should give way to whom. This can result in motorists accelerating more quickly than they ought, in close proximity to pedestrians who are after all crossing on their own green light.

The only effective means to stop this behaviour occurring is for motorists to have the perception that there is a real chance that they may be caught queuing in the intersection and fined for this unsafe behaviour. This enforcement could be carried out by Police Officers or through the development of camera technology.

Recommendation

17. That greater enforcement be carried out at intersections to prevent vehicles blocking the intersection and queuing across pedestrian crossings.

Giving Way to Pedestrians

Many motorists seem to be unaware of some of the Australian Road Rules in relation to giving way to pedestrians. In particular, ARR 73 to 75 seem to be either be unknown to motorists or commonly ignored.

ARR 73 Giving way at a T-intersection states:

“(2) If the driver is turning left (except if the driver is using a slip lane) or right from the terminating road into the continuing road, the driver must give way to...(b) any pedestrian on the continuing road at or near the intersection.

“(3) If the driver is turning left from the terminating road into the continuing road using a slip lane, the driver must give way to...(b) any pedestrian on the slip lane.

“(5) If the driver is turning from the continuing road into the terminating road using a slip lane, the driver must give way to...(b) any pedestrian on the slip lane.

“(6) If the driver is turning right from the continuing road into the terminating road, the driver must give way to...(b) any pedestrian on the terminating road at or near the intersection.”

ARR 74 Giving way when entering a road from a road-related area or adjacent lane states:

“(1) A driver entering a road from a road-related area, or adjacent land, without traffic lights or a *stop sign*, stop line, *give way sign* or give way line must give way to...(b) any pedestrian on the road; and (c) any vehicle or pedestrian on any road-related area that the driver crosses to enter the road.”

ARR 75 Giving way when entering a road-related area or adjacent land from a road states:

“(1) A driver entering a road-related area or adjacent land from a place on a road without traffic lights or a *stop sign*, stop line, *give way sign* or give way line must give way to: (a) any pedestrian on the road; and (b) any vehicle or pedestrian on any road-related area that the driver crosses or enters.”

Driver education through public advertisements could help to highlight these important road safety rules.

Recommendation

18. That driver education through public advertisements be undertaken to highlight that motorists must give way to pedestrians at driveways and under certain conditions at intersections.

Dwell on Red

North Sydney Council has a large number of restaurants and licensed premises. As a result, there are increasing safety concerns about pedestrians under the influence of alcohol. These inebriated pedestrians can be unpredictable in their behaviour and they can have poor judgement regarding vehicle speeds and the distance to approaching vehicles.

The ‘Dwell-on-Red’ treatment involves displaying a red signal to all vehicle directions during periods when no vehicular traffic is detected by signals, so that drivers approach high-risk intersections at lower speeds than if a green signal were displayed. Once detected, drivers receive a green signal in the normal way and when vehicle demand has ceased the signals revert to red in all directions.

The aim of the ‘Dwell-on-Red’ treatment is to reduce vehicle speeds, particularly in high pedestrian activity areas and those where intoxicated pedestrians may be present, in order to reduce accidents and the severity of injury. A trial in Ballarat, Victoria, presented at the RTA local government road safety conference held in January 2007, demonstrated that the treatment indeed resulted in a significant reduction in vehicle speeds.

It is proposed that a trial of the ‘Dwell-on-Red’ phase for traffic signals be implemented at selected locations where there is evidence of high pedestrian and alcohol related activity in the North Sydney LGA. Given this proposal is aimed at alcohol-affected pedestrians, it is suggested that the Dwell-on-Red would only apply after the peak hour, that is starting at 8pm or 9pm. That way, there would be only minimal impacts on the surrounding road network.

Recommendation

19. That support be given to trialling 'Dwell-on-Red' in busy pedestrian areas, particularly in the evenings as this results in slower vehicle speeds.

Footpath Clutter

Many Councils, including North Sydney, are currently in the process of installing multifunction poles in the busy retail and CBD areas. The main objective for installing these new multifunction poles is to consolidate signage and services and to reduce "clutter" on the footpaths. This improves access for pedestrians, and particularly those who are sight impaired.

At the same time, some of the service providers such as Telstra and Energy Australia are introducing new infrastructure in the form of service boxes. These boxes which are about 0.5 metres high were previously located underground or on poles. These boxes are now being placed on the footpath, creating trip hazards for pedestrians.

Recommendation

20. That the State Government work with the service providers to minimise the installation of service boxes on footpaths which create trip hazards for pedestrians.

North Sydney Council appreciates the opportunity to comment on pedestrian safety. Council urges the Parliamentary Inquiry to give consideration to the various recommendations outlined in this submission.

Yours sincerely



Genia McCaffery
Mayor