



## THE BICYCLE INSTITUTE OF SOUTH AUSTRALIA

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### ***Cycling for the Environment, for Health, for Pleasure***

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[dpti.roadsafety@sa.gov.au](mailto:dpti.roadsafety@sa.gov.au)

Dear Sir/Madam,

#### **Draft Railway Crossing Safety Strategy**

The Bicycle Institute of SA has been representing the interests of commuter and utility cyclists in our state for over forty years. We appreciate the opportunity to comment on the above strategy, but as a volunteer organisation have capacity constraints in addressing all of the enquiries directed towards us. We are very interested in the Draft Railway Crossing Safety Strategy and hope you are still able to take into consideration the following comments.

Cyclists use both road and pedestrian crossings of railways. We assume the DPTI is sufficiently sensitive to the interests of cyclists as part of on-road traffic so we will focus on the pedestrian crossings.

Firstly, we note that the Draft Railway Crossing Safety Strategy makes a few basic points:

- There are 710 public access railway crossings in SA, of which 364 are pedestrian crossings in the metropolitan area.
- People sometimes engage in risky behaviour when crossing railway lines.
- In the period 2011-2015 there have been 9 collisions at pedestrian crossings, resulting in 3 fatalities, and 5 injuries, 4 of which were serious. In addition there were 383 near misses/near hits. (Apparently this last category is “under reported” suggesting some form of formalized reporting arrangement with specific criteria as to what constitutes a near miss/near hit.)
- There is a range of strategies that can address safety at pedestrian crossings. Eight were listed, the fifth of which was “identify crossings for possible closure where safer alternatives exist”. We can only take this to imply closing pedestrian crossings, forcing pedestrians to use “safer crossings nearby”.

We make three points in relation to the closure of pedestrian crossings.

- First, the supposedly “safer” crossing is normally a road crossing with a lot of traffic and where space for pedestrians and cyclists can be limited to non-existent. This traffic is often sometimes making a turning manoeuvre before or after crossings, with drivers more focused on their manoeuvres than non-motorised road users.  
The strategy of forcing pedestrians to use “safer crossings nearby” does not specify that these alternatives are convenient or acceptable, or define how “safer” is assessed. “Safer” in terms of risk of being hit by a train may not align with “safer” in terms of personal security, for instance. More specifically, [Understanding Pedestrian Behaviour at Railway Level Crossings: Is There a Need For More Research?](#) (Freeman et al, 2013) points out that research has overwhelmingly focused on train-vehicle collisions rather than train-pedestrian collisions, making any discussion regarding pedestrian risk questionable.  
The metric used for ‘safety’ needs to be seen in a more holistic sense than merely infrastructure to protect pedestrians from passing trains, especially where trains are many times less frequent than other deadly vehicles.

- Secondly, in the proposed strategy of directing people to “safer crossings nearby”, ‘nearby’ is also undefined. Currently, the provision of appropriate crossing locations near public transport stops on our road network is woeful. The distance between signalised crossings may be over a kilometre at even inner-City locations such as Magill Road. A metric for ‘nearby’ needs to be defined, as well as how this imposition is assessed compared to collision risk and methods of shortening ‘nearby’ to an acceptable distance.

‘Nearby’ can also be assessed in terms of additional travel time, and in this case, delay should be considered as adding to effective distance. Where roads are large, pedestrian crossing facilities often include staged crossings and can have delays in excess of 120 seconds. Considering that one of the guides quoted in Austroads’ *Guide Information for Pedestrian Facilities* (AP-R423-13) points out that significant numbers of pedestrians will start to cross illegally at delays of up to 60 seconds, “safer crossings nearby” can be death-traps if “safer” is considered in terms of the risk of being hit by a train rather than being exposed to a death risk – as in our earlier point.

- Thirdly, an even more holistic perspective would consider the health impacts of measures that would make walking (and cycling) less convenient. While this is of course hard to quantify, we note that as usual in considering safety, health is ignored. This is despite the State Government’s “Health in All” policies, adopted almost a decade ago.

For these reasons the Bicycle Institute would need to be convinced of the overall benefit before accepting closure of a pedestrian crossing, with quite precise estimates of the risks involved and the impacts on walking and cycling.

We accept that the government wants to keep consultation documents brief, but this brevity has meant that supporting evidence for any of the strategies is generally lacking. In particular, we would like to see more information about the crashes that resulted in deaths and injuries, as well as what is defined as a near miss/near hit. We would also want evidence of exposure rates, to determine risk.

We cannot help but contrast the *Draft Railway Crossing Safety Strategy*’s cursory comments regarding pedestrian risk to Canada’s [Pedestrian Safety at Grade Crossing Guide](#) (September 2007), with its pedestrian-focused solutions.

It is also somewhat surprising that one strategy for metropolitan pedestrian crossings is “Continue to improve accessibility for people with disabilities [etc]” when DPTI uses a maze design that does not comply with the current Australian Standard (AS1742.7-2007), and is therefore difficult for both cyclists and people with disabilities to negotiate. This local design has continued to be used on the basis that South Australia has fewer train-pedestrian collisions than other states that have adopted the Australian Standard maze, but with no consideration of exposure risk, etc. and hence whether this draconian maze has any benefit – as per [Understanding Pedestrian Behaviour at Railway Level Crossings: Is There a Need For More Research?](#), in that there is no real evidence of effectiveness of pedestrian crash countermeasures.

We also query whether the use of this design is compatible with the *Disability Standards for Accessible Public Transport* (2002), as amended. We cannot see how the local DPTI variant can be considered to be a ‘minor departure’ from AS1742.7 and hence the *Disability Standards for Accessible Public Transport* as it does not provide equivalent effectiveness, amenity, availability, convenience, dignity, and safety. (For reference, an Australian Standard maze installed by the Australian Rail Track Corporation – which does not operate in accordance to state practice but adheres to national practice – can be seen in Tanunda.) We are very aware of the impacts of this maze on access and the costs of alternative. For example, where the Stuart Linear Path crosses the tramway, an active crossing was at first mooted as an alternative to the DPTI standard maze on the basis of the numbers of people using this facility. However, it is the former rather than the latter that has subsequently appeared, to the detriment of pedestrians and cyclists alike.

We suggest that future consultation documents include references to technical resource documents that provide more evidence. In this case, it would have included the ALCAM assessments of at least some intersections.

Where safety is to be improved at pedestrian crossings, we urge the government to take seriously pedestrian-focused treatment options that pay attention to the needs of all people, including those with disabilities, and not just use the numbers presented in the Draft Railway Crossing Safety Strategy as a mantle to dress the one option that railway interests always jump to: closing the crossing, whether or not an adequate alternative exists.

As part of this, we urge DPTI to adopt the Australian Standard maze as its standard maze design, for the benefit of multiple active transport users: cyclists, people with disabilities, people with prams and parents wanting to negotiate mazes while holding their children's hands.

Finally, we also note the bias towards pedestrian overpasses to underpasses on the few occasions when new rail line crossing options are considered to replace pedestrian crossing opportunities. Historically, underpasses have been undesirable due to personal security risks. However, overpasses impose an 'up and over' penalty in excess of the 'down and up' penalty of underpasses. Even apart from this, underpasses are more desirable for cyclists as they can preserve energy, with that gained rolling down being partially recovered in ascending on the other side. With the cost of overpasses often greater than that of underpasses, this bias against underpasses also limits one method of improving pedestrian and cyclist access while still meeting safety goals. We point out that underpasses have been provided elsewhere in a way that eliminates the creation of areas where assailants might lurk unseen or passengers find themselves alone and with no passive surveillance. We urge DPTI to not dismiss underpasses on the basis of personal security without considering pros and cons based on local circumstances and an improved design philosophy.

We know our comments are detailed and potentially contentious. However, they are key to ensuring that an adopted Railway Crossing Safety Strategy fulfils the Health in All goal of creating a better outcome across the state. In addition to health, catering for active transport modes has significant cross-sector benefits, in the fields of transport, environment, liveability and economic vitality.

If you would like to discuss design issues further, please feel free to contact me on 0409 284 165 or via email at [chair@bisa.asn.au](mailto:chair@bisa.asn.au).

Yours sincerely,



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