

Zhi Min Soh:

May 31 marks 5 years since the fatal Edinburgh tram rails crash - a few lessons learned, but no Fatal Accident Inquiry, no published report ?

Opinion Piece by Independent Transport Specialist [Dave Holladay](#), May 2022

It's 5 years since Zhi Min Soh died when the driver of a Rabbits Tours mini-coach failed to stop (from 20mph?) when she fell crossing tram rails at Queensferry Street junction on Shandwick Place in Edinburgh. She went under the bus and its front wheels, and to my knowledge we've yet to have the Fatal Accident Inquiry (Scotland's version of a Coroners Inquest), from which directions or action for Prevention of Future Deaths (a Section 28 report in England and Wales) are delivered. Pre pandemic an FAI could take years to be heard, goodness knows when we might hear of this one?

This fatal crash came 4 years after an identical set of causal factors killed Roger de Klerk in Croydon in November 2013, as he fell, also turning right across tram tracks, with a bus driver close enough behind such that she failed to stop in time and ran over him, just as the Rabbits driver did when she ran over Zhi Min Soh.

There were two elements to both crashes – first, the tramline layout and dreadful quality of installation which led to the cyclist's fall and, secondly, the fallen rider being hit by a bus – this being particularly significant as falling off is generally survivable.

By law Edinburgh Council, like all UK Roads Authorities, must investigate crashes, and from those investigations take action to prevent future crashes (Section 39 RTA 1988) – this of course is separate from any FAI. Given the significance of this crash there must surely be such a report. However, unlike rail and air crashes, this detail never gets published, to get a wider awareness of action that needs to be taken; a clear case for getting an equivalent to the separated and independent-of-operation investigation/regulation systems of RAIB/ORR and AAIB/CAA (& MAIB/MCA).

This presumed crash investigation and Prof Chris Oliver's work (see later) were reflected in a rapid roll-out of 'Give Cyclists Space' signs (pictures below), instruction to bus drivers not to drive close to cyclists crossing tram tracks, and other awareness measures. i.e. an evidence based response to eliminate what has been identified as a major cause of cyclist falls. This is an interesting and welcome sign that hazards had been identified and action taken to remove or reduce them, although [planned physical measures](#) to mitigate road layout blackspots that invite or facilitate some of the tramline cycle crashes, are still not delivered 5 years after the fatal crash. Redesign of the West End Junction itself now awaits the City Centre Transformation. Painted cycle lanes at suggested tramline crossing points may or may not help a bit, but don't bring safety. A worse issue is the original tram track alignments that practically deliver the problem, through compromises pressed on the layout by motor traffic provision, rather than good tram track design.

Turning to the second aspect of the crash, the victim being hit by the Rabbit's bus, I suspect that the CCTV and speed data from the Lothian Buses vehicle travelling behind and impounded at the crash scene provided significant detail here, with some VERY clear lessons to act upon which are evidence based rather than the current vague detail which directs the core 'blame' for crashing on to the rider.

With minimal damage to the mini-coach it was clear that Zhi Min Soh was on the ground when she & her bike went under the wheels, and [work by Prof Chris Oliver](#) in Edinburgh, and others in Toronto, has clearly shown that at least 50% of falls crossing tram tracks have the 'presence' (ie threat) of the driver of a motor vehicle distracting the cyclist's focus or modifying their course/speed to create the loss of control - I know this from personal experience at Haymarket when a bus driver cut me off and the front tyre dropped into the groove as I crossed the rails too slowly, and my focus on not running into the side of the bus let the

front wheel turn. 70% of falls are when the front tyre 'drops' into the groove like this, and most are totally avoidable when the rider is able to cross the rails at a steady speed with firm control of the steering and not having a change of direction to avoid the actions of another road user

Finally, there remains the detail of the large gap (often a ridiculous 40+ cm) under the front of many trucks and several types of bus with nothing to deflect a victim clear of going under the wheels (with axle loads of up to 9 Tons likely to cause very serious if not fatal injuries). This gap needs the 'lifesaver' protection that has to be fitted to street running trams for just this reason. A solution has been developed and tested, capable of pushing a small motorbike across a workshop floor, with an inflatable (& thus both shock absorbing, and retractable) support structure - but no one is pressed to spend that extra few £'000 per vehicle when the tyres are the rubber of heavy vehicles rather than the steel of tram wheels ... so victims continue to get crushed as they go under the high body of a large bus or truck, many such deaths avoidable with 'under-run protection'. Perhaps a few coroners may read this, and consider calling in a Section 28 report to ask - could this death have been avoided if the victim had been pushed clear of the wheels?

In summary, failings of the system saw Zhi Min Soh killed in an identical crash to that which killed Roger de Klerk 4 years earlier, and this potential remains in cities where the conditions to deliver this also remain. Unlike other cities, Edinburgh has at least delivered the signs below, with a few lessons learned and acted on, but, even here, promised physical safety improvements at the West End Junction and at other tramline crash blackspots are still not in place. And the full scrutiny of a FAI is, to my knowledge, still awaited.

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Notes

1. I suspect that a fatal crash at a level crossing near Doncaster, which shut down ECML last year had similar factors causing the cyclist to lose control and be hit by a car driver, who was arrested & charged
2. Note for UK Tram & LRSSB - As far as I'm aware only Edinburgh uses the supplementary plates where



cycle traffic crosses tram tracks, although with around 50% of cyclists falls linked to the way driver behaviour distracts them & causes the fall why is this not being promoted as road danger reduction?

3. We have a long way to go to realise the importance of objective crash investigation and swift action. Here is [another example](#), where a woman was seriously injured, and 8 weeks later in an frighteningly similar collision, a second woman died. For further detail of this case, [here's the work I did](#) which persuaded the Coroner to call for a Section 28 Report on the action being taken to prevent further crashes, against protestations from TfL's legal team (TfL managed the busway). I have done too many reports like this, where the markers almost scream that the road layout, driver behaviours etc WILL deliver a collision, and possibly a fatality, and where lessons are not learned when a crash does occur.