

INQUEST TOUCHING ON THE DEATH OF MIRIAM BOULIA – 21 NOVEMBER 2022

REPORT BY TRANSPORT FOR LONDON

Introduction

1. Transport for London ('TfL') would like to express its sincere condolences to the family and friends of Miriam Boulia following her tragic death on 4 February 2022 at the junction at Great Eastern Street/Curtain Road in the LB Hackney.
2. This report is written to assist the Coroner's investigation into Ms Boulia's death which is listed to take place on Monday 21 November 2022 at Poplar Coroner's Court.
3. The report covers:
 - a) TfL's proposed Safer Junction scheme at Great Eastern Street/Shoreditch High Street/Commercial Street , which incorporates the Road Safety scheme at the junction at Great Eastern Street/Curtain Road;
 - b) Go Ahead London site visit following the collision; and
 - c) Response to the report from the MPS's Traffic Management Officer.

(a) TfL's proposed Safer Junction scheme at Great Eastern Street/Shoreditch High Street/Commercial Street , which incorporates the Road Safety scheme at the junction at Great Eastern Street/Curtain Road

4. TfL, as the highway authority, has responsibility for maintaining, operating and improving the Transport for London Road Network ('TLRN') in London. The TLRN comprises around 5% of all roads in London, but carries over one third of all traffic.
5. The Mayor of London's Transport Strategy¹ was published in 2018 and sets out a clear commitment to the Vision Zero approach to eliminating road deaths and serious injuries on London's roads. The Mayor, through TfL and the boroughs, and working with stakeholders, has adopted Vision Zero for road danger in London and the aim is for no one to be killed in or by a London bus by 2030 and for all deaths and serious injuries from road collisions to be eliminated from London's streets by 2041.
6. The Mayor, TfL and the Metropolitan Police Service ('MPS') have published London's first Vision Zero action plan which sets out these bold and ambitious plans to eliminate deaths and serious injuries from London's transport network.² Actions in the plan include:
 - a. Lower speed limits on the TLRN;
 - b. Transforming dangerous junctions;
 - c. Tough safety standards for the design of HGVs;
 - d. A world-leading Bus Safety Standard; and
 - e. Safer streets for walking.

¹ <https://www.london.gov.uk/programmes-strategies/transport/our-vision-transport/mayors-transport-strategy-2018>

² <https://content.tfl.gov.uk/vision-zero-action-plan.pdf>

Safer junctions programme

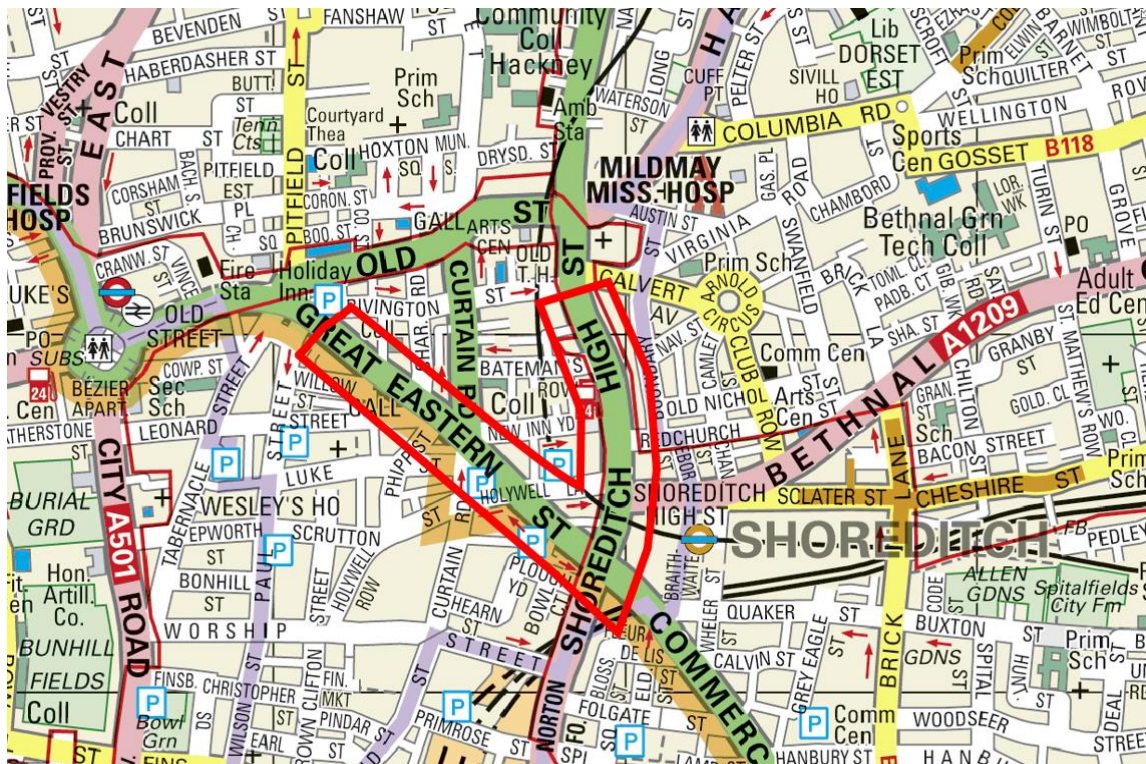
7. Safety improvements at specific junctions are critical to achieving the Mayor's Vision Zero ambition in reducing road danger.
8. In April 2017, TfL named 73 junctions to be targeted in its updated Safer Junctions programme.³ TfL's analysis used the previous three years of casualty figures on the TLRN to identify the junctions with the poorest safety records so that they could be targeted for work. The list of junctions included: (i) 21 junctions which had had significant improvements made within the preceding three years, (ii) 33 junctions with improvements planned within TfL's business plan and (iii) 19 junctions which would undergo new safety studies to identify possible solutions and safety improvements.
9. The junctions in the Safer Junction programme are also major locations of social interaction and in many cases perform an important 'place' function. Therefore design proposals seek to make these locations more appealing to pedestrians and cyclists with the aim of reducing road danger. This holistic approach strives to not only reduce collisions, but improve the urban realm, encourage modal shift to walking and cycling and contribute to wider regeneration objectives.
10. Examples of interventions which can be considered for the Safer Junction programme include:
 - a. New and/or improved pedestrian crossings;
 - b. Innovative facilities to separate cyclists from traffic in time and space and improvements to existing cycle facilities where they exist;
 - c. Wider pedestrian footways and decluttering of existing footways;
 - d. 'Floating' bus stops;
 - e. Opportunities to introduce sustainable urban drainage;
 - f. Opportunities to introduce pocket parks, improved hard and soft landscaping and new cycle parking;
 - g. Reviews of street lighting throughout the scheme area to identify any sub-standard locations;
 - h. Measures to reduce traffic speeds (including consideration of 20mph) and ensuring those speed reductions are self-enforcing e.g. through raised pedestrian crossings;
 - i. Measures to bring about traffic reduction through junctions e.g. traffic lane removal (where practicable and without significant adverse impacts on buses) and making roads accessible to pedestrians, cyclists and buses only; and
 - j. Opportunities for increased bus priority.
11. The junction at Great Eastern Street/Shoreditch High Street/Commercial Street in LB Hackney was one of the 33 junctions announced in April 2017 for which there were planned improvements within TfL's then business plan and which would be designed to address safety concerns.

³ <https://tfl.gov.uk/info-for/media/press-releases/2017/april/new-roads-targeted-in-updated-safer-junctions-programme>

Junction at Great Eastern Street/Shoreditch High Street/Commercial Street

12. The junction of Shoreditch High Street and Great Eastern Street, within the LB of Hackney, is situated along the A10 corridor. The A10 is a strategic arterial corridor that runs from Gracechurch Street in central London northwards towards the GLA boundary. Within the LB Hackney, the A10 is generally a single carriageway bi-directional and one way road (with stretches of bus lanes in most sections). Cycle Superhighway 1 also runs closely along most sections of the length of the A10 in LB Hackney and provides cyclists with an unsegregated cycle route on quieter parallel roads.
13. The junction has a mixture of local businesses including a pub on the south-western corner of the junction and a new proposed development on the south-eastern corner. At the junction, there are examples where the street infrastructure acts as a physical barrier to the movement of people. Generally, the junction is dominated by vehicular traffic. However, in the peak periods there is a heavy cycle flow which has no provision. There are also narrow footways adjacent to crossing points, street clutter and relatively high levels of pedestrian flows in this area. In 2017, a 20mph speed limit was introduced around the Shoreditch Triangle.
14. Following a period of work undertaking assessments and surveys, TfL appointed Traffic Design Engineering ('TDE') (TfL's in-house designers) at the end of 2019 to carry out feasibility and concept design for the junction at Great Eastern Street/Shoreditch High Street/Commercial Street. The scope of the commission was for TDE to:
 - a. Provide feasibility design options based on potential interventions to reduce road danger, including exploring opportunities to improve cycle facilities, encourage pedestrian priority, reduce traffic dominance and vehicle speeds and, where possible, introduce urban realm improvements and/or green infrastructure;
 - b. Provide concept design of the preferred option;
 - c. Utilise the results from the base Healthy Streets surveys undertaken by TDE to inform the design;
 - d. Assist the TfL sponsor to assess the impact of proposals using TfL's City Planner strategic assessment framework tool;
 - e. Provide designs to TfL Network Performance to allow them to undertake traffic modelling of recommended solutions for the design of all options and to assess local impacts;
 - f. Provide technical input to the sponsor for the business case and other required paperwork in preparation for associated programme and portfolio boards;
 - g. Calculate potential collision savings and other quantifiable benefits which may be derived, such as more walking and cycling; and
 - h. Provide a detailed Microsoft project programme and cost estimate for TDE tasks related to carrying out the feasibility and concept designs.

15. The map below shows the geographic scope of the feasibility and concept design for this junction:



16. As noted in paragraph 11 above, the junction at Great Eastern Street/Shoreditch High Street/Commercial Street was part of the Safer Junctions programme. TDE were instructed to investigate and provide feasibility and concept designs which could include a combination of various proposals for different parts of the junction at Great Eastern Street/Shoreditch High Street/Commercial Street. The original timescales for the Safer Junction programme for this junction was for feasibility, concept design and consultation to be completed by November 2021. Detailed design was due for completion by the end of October 2022 and construction complete by April 2023. These timescales were not achieved due to the Covid-19 pandemic (see paragraphs 19-20 below).
17. The junction at Great Eastern Street/Curtain Road, the site of the collision involving Ms Boulia on 4 February 2022, was not formally part of the Safer Junction programme. However, as part of the scope of the brief sent to TDE at the end of 2019, TDE was instructed to consider some proposals for this junction as well including reviewing pedestrian crossing facilities at the junction at Great Eastern Street/Curtain Road to incorporate a separate Road Safety scheme to be considered as part of the wider Safer Junction scheme.
18. The brief identified that vehicles travelling east along Great Eastern Street turn into Curtain Road using a left turn slip. Some vehicles then take an immediate right turn into New Inn Yard which directly conflicts with pedestrians. The crossings are narrow and not on the pedestrian desire line. One proposal put forward to TDE was a new

layout for this junction. This would seek to align and widen pedestrian crossings to the desire line and implement physical measures to slow speeds around this junction.

Impact of the Covid-19 pandemic

19. The onset of the Covid-19 pandemic in early 2020 and the national lockdown in March 2020 led to TfL bringing to a halt all project sites unless they needed to continue for operational safety reasons.
20. The pandemic devastated TfL's fares income which meant TfL required emergency Government support to run its transport services. This has been in the form of several short term-agreements with Government. This led to pausing expenditure on non-critical spend for certain projects. Until TfL secured a long-term funding deal, it was vital to keep expenditure controls under continuous review. Therefore the proposals referred to above to investigate feasibility proposals for the junction at Great Eastern Street/Curtain Road, as well as the wider Safer Junction scheme, were also paused pending a long-term funding deal.

Current proposals for this junction

21. On 30 August 2022, TfL reached a long-term agreement with the Government on funding until 31 March 2024. This has allowed TfL to recommence feasibility and design proposals for various schemes which were paused due to funding constraints during the pandemic.
22. Since August 2022, TfL has been meeting with the Department for Transport ('DfT') to discuss plans on spending the funding. TfL will now be progressing the scheme for the Safer Junction programme at Great Eastern Street/Shoreditch High Street/Commercial Street. As part of this, TfL will formally include the Great Eastern Street/Curtain Road junction within the scope of this scheme, subject to final approvals with the DfT. The scope of any briefing for the scheme will include asking the designers to consider the best options for pedestrians at this junction. The timescales for this scheme are 2-4 years, subject to funding.

This junction is a high priority for TfL and any urgent safety improvements which need to be made at this junction in advance of progressing the wider scheme will be progressed (see paragraph 39 for further detail).

(b) Go Ahead London site visit following the collision

23. Go Ahead London is the operator of the bus which was involved in the tragic collision involving Ms Boulia. On 8 February 2022, a site visit was undertaken attended by representatives from Go Ahead London and TfL. After the collision, a Go Ahead London Accident Prevention Manager completed a 'TfL – Buses Investigation of Major Incident Form'.
24. The form identified potential steps to be taken by the operator and TfL to reduce the likelihood of a recurrence of this type of collision. In terms of TfL, the report stated:

'It is likely that AEB (Advanced Emergency Braking) may have reduced the level of injury sustained by the pedestrian.

The implementation of ISA would have prevented the driver from exceeding the speed limit. This may have reduced the level of injury sustained by the pedestrian.

Consider returning fencing to guide pedestrians at crossing points.

TfL to instigate speed calming measures on this stretch of road to address the observations noted during the site visit.

Bus frontal design – Bus safety standard.'

25. Advanced Emergency Braking ('AEB') is a driver assist system which is intended to help the driver avoid or mitigate the severity of collisions. AEB uses forward looking sensors to detect the likelihood of a collision. If the driver has not acted to prevent a detected collision, the brakes are automatically applied to slow, or ideally stop, the vehicle before impact.
26. AEB is a requirement from 2024 for all new buses as part of the Bus Safety Standard Roadmap.⁴ There is also further information available about the Bus Safety Standard⁵ and AEB.⁶
27. Changes to the geometry and energy absorbing materials at the front end of buses are also a requirement in the Bus Safety Standard Roadmap. This safety measure is aimed at better protecting and lessening the severity of an injury suffered by a road user involved in a collision with a bus. Research has been published on this matter and further work is underway to support the delivery of this requirement.⁷
28. AEB and changes to the front end of buses are designed to work together to optimise their overall effectiveness.
29. Intelligent Speed Assistance ('ISA') has been required on all new buses since 2019 through the Bus Safety Standard. TfL have also enabled a slightly different version of ISA on some of its existing fleet and 1,200 buses have been retrofitted to date. Further retrofitting of 1,800 buses is subject to available funding. Currently around 30% of the London bus fleet has ISA. TfL has published some initial research into ISA.⁸
30. The steps identified by Go Ahead London also referred to the prior removal of fencing at crossing points encouraging pedestrians to cross at locations where sight lines are not optimum. The pedestrian guardrail ('PGR') at this location would have been removed over ten years ago as part of a wider programme to remove such infrastructure across the TRLN unless there was a safety case for retention.
31. Consideration of restoring PGR to this junction will be considered as part of the wider scheme for this junction referred to above.

⁴ <https://content.tfl.gov.uk/future-roadmap.pdf>

⁵ <https://content.tfl.gov.uk/bus-safety-standard-executive-summary.pdf>

⁶ <https://content.tfl.gov.uk/advanced-emergency-braking.pdf>

⁷ <https://content.tfl.gov.uk/bus-safety-standard-vru-front-crashworthiness.pdf>

⁸ <https://content.tfl.gov.uk/intelligent-speed-assistance-on-london-buses.pdf>

32. In terms of instigating traffic calming measures on this stretch of road, such matters will also be considered as part of the wider scheme for this junction. TfL also reviews the speeds of vehicles on roads where speed limits have been changed. If speeds are not reducing or are not at the speed limit level, consideration can then be given to the use of physical measures to aid speed reduction. The most recent survey for Great Eastern Street shows a reduction in speed to 21mph which is within the category, below 24mph, that the DfT states signage and road markings can be used and that physical measures are not also required. We will undertake further surveys as part of the work highlighted in paragraph 22 to consider again if physical measures are required.
33. TfL Surface Transport also completed a form recording some of the details of the collision which is annexed to this report as Annex 1.

(c) Response to report from the MPS's Traffic Management Officer

34. On 31 October 2022, TfL were provided with a copy of a report by PC Luke Heming, a Traffic Management Officer at the MPS. The report considers the tragic collision involving Ms Boulia and outlines practicable measures that could be implemented to help prevent collisions of this type reoccurring at the location.
35. The conclusion on page 9 of the report proposes some changes which could be made to the junction to improve safety:
- a. Potential improvements to the signal timings;
 - b. Installing new pedestrian signals which include countdowns; and
 - c. Potential early release timings for cyclists.
36. There have not been any changes to the signal timings or pedestrian signals since the collision on 4 February 2022. However, modernisation to the pedestrian signals will be considered as part of the scheme for this junction (see paragraphs 21-23 above)
37. No cycle early release signals have been installed since the collision on 4 February 2022. As per the approach for pedestrian signals, any modernisation of this junction will consider the inclusion of cycle early release as part of the scheme (see paragraphs 21-23 above).
38. TfL was made aware of the proposals in the MPS report on 31 October 2022. TfL is arranging a further site visit for early December 2022 to consider the proposals made in the MPS report and any findings made at the forthcoming inquest. The purpose of this site visit will be for TfL to consider any urgent safety improvements required at this junction.

Transport for London

17 November 2022