

35975

Subject: Balgreen and Saughton tram stops

Improvements, alterations, repairs carried out to the tram track pedestrian crossing between Balgreen and Saughton tram stops carried out since Sept 2018 to date. For the avoidance of doubt it is the most westerly of 3 crossings on this section of track and is approximately 100m east of Saughton tram stop. An image of the crossing is enclosed.

The dates on which any such work was carried out

If available, the reason or decision why such work was carried out.

Following the fatal accident close to Saughton tram stop, the rail Accident Investigation Branch undertook an investigation. Their findings were presented in a report published in July 2019, containing a number of recommendations, including the following:

Recommendation 2

The intent of this recommendation is to improve the safety of pedestrian crossings on off-street sections where trams run at relatively high speeds (paragraph 75).

Edinburgh Trams Limited should:

a) undertake risk assessments of all of its pedestrian crossings on off-street sections and identify any necessary control measures.

The assessment should include consideration of the crossing layout, sighting distances, line speed, tram braking distances and the audibility of the tram warning horns. Control measures for consideration should include the following safety features:

- improved demarcation of the crossing; and
- barriers, chicanes, or similar, to turn pedestrians' direction of travel, just before crossing, to face oncoming trams on the nearest track.

Recommendation 4

The intent of this recommendation is to improve current industry guidance for pedestrian level crossings on UK tram systems, by including lessons from this accident and previous similar accidents (paragraph 75).

The Light Rail Safety and Standards Board (LRSSB) should update and improve the current industry guidance for the design, layout and management of off-street pedestrian level crossings on UK tram systems contained in 'Tramway Principles and Guidance', January 2018. The new guidance should consider lessons from this and previous similar tramway accidents. It should as a minimum include guidance on routine risk assessments of crossings, taking into account sighting distances, line speed, tram braking characteristics and the audibility of warning horns.

The Light Rail Safety and Standards Board (LRSSB) published guidance in May 2019, for the design and ongoing assessment of crossings of tramways at grade by Non-Motorised Users.

Risk assessments based upon the LRSSB guidance was completed on the crossings in question, and the following measures were implemented between 30 September 2019 and 25 October 2019. Road Safety Audits (Stages 2 and 3) were also undertaken on the works.

| Measures | Purpose |
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| Yellow hazard box | To highlight hazard zone to pedestrians and tram drivers. |
| Underrun protection | To minimise the risk of trapping underneath a tram. |
| Anti-pedestrian paving | To direct pedestrian to the crossing point. |
| Bollards | Bollards with reflective tram signs to act as a chicane to slow users down and encourage them to look both ways when using the crossing. |
| Additional ground markings (Tramway – look both ways) | To further highlight the crossing to anyone looking down i.e. at their phone. |
| Kick rails | To direct pedestrian to the crossing point. |
| Amended the location of crossing warning signage for tram drivers | To align the positioning of the signs to align with driver training to be in the brake position at a set point back from the crossings. |
| No pedestrian access signs on unwanted desire lines | To warn users not to walk trackside. |