



Economic Prosperity, Environment and Highways Board  
2 March 2017

## **Update on Proposals to Improve Pedestrian Safety on Bridge Street, Guildford**

**Purpose of the report:** Performance Management

This report provides an update on the development of proposals to improve pedestrian safety on Bridge Street, Guildford. This follows a road traffic collision on 20 February 2016 that led to the deaths of two pedestrians. This issue was the subject of a petition to the council on 17 May 2016 and was considered previously by the Economic Prosperity, Environment and Highways Board on 9 June 2016.

### **Introduction:**

1. There was a road traffic incident on Bridge Street on 20 February 2016 whereby a vehicle left the road and killed two pedestrians on the footway. A petition was submitted to the council on 17 May 2016 requesting that various improvements should be considered to improve pedestrian safety on this stretch of road. The council resolved that this issue should be subject to scrutiny by the Economic Prosperity, Environment and Highways Board.
2. A report was submitted to the Economic Prosperity, Environment and Highways Board on 9 June 2016 that provided an explanation of the extent and nature of the history of road casualties on Bridge Street. The report described an assessment of the options to reduce the risk of casualties in the future, based on this analysis. The Board resolved that
  - a) officers commission feasibility and design work for the repositioning of the stop lines at the junction of Bridge Street with Onslow Street;
  - b) officers commission feasibility and design work for the implementation of raised road tables at the crossing points at this junction;
  - c) officers commission a review of the pedestrian and traffic signal phasing and staging at this junction;

- d) once completed, these options be presented to Guildford Local Committee for approval and funding;
  - e) for the board to receive an update on road safety improvements on Bridge Street in spring/ summer 2017.
3. The following sections provide a reminder of the conclusions of the analysis of collisions, followed by an update of progress on each of the recommendations (a) to (c) above as well as a summary of the latest position with respect to a potential major scheme for the gyratory.

#### **Collision analysis summary**

4. A full analysis of the collisions taking place on Bridge Street was provided in the previous report to the Economic Prosperity, Environment and Highway Board on 9 June 2016. In summary the collision resulting in the deaths of two pedestrians (whereby the vehicle left the road and mounted the footway) at the western end of Bridge Street was not found to form part of a pattern of similar collisions at this location. It was not thought that the cause of the loss of control of the vehicle was as a result of any highway defect or deficiency in the design of the highway environment. Therefore it would not be an effective use of resources to try to amend the highway at this location to reduce the risk of future similar collisions, because it is highly unlikely that an incident involving the same circumstances would take place again at the same location.
5. Instead analysis of all the injury collisions recorded by the police highlighted a pattern of pedestrian casualties focussed at the eastern end of Bridge Street at the junction with Onslow Street. There were a total of 31 road casualties in just over five years on Bridge Street, 21 of which were pedestrians, and 15 of these took place at the Bridge Street junction with Onslow Street. These involved pedestrians being struck while in the road rather than on the footway. Consequently work has been undertaken on highway improvements to improve pedestrian safety at this location and are described below.

#### **Repositioning of Stop Lines**

6. Currently the position of the vehicle stop lines at the junction of Bridge Street with Onslow Street are at the minimum of 1.7m from the pedestrian crossings. It was proposed that this could be increased to the maximum of 3m. This would mean there would be a greater distance between any vehicles waiting to set off from the stop line and any pedestrians who may still be crossing at the end of the green man period, which may reduce the risk of conflict and collision.
7. At the time of writing an order had been placed and it is expected that new stop lines will be implemented before the end of March 2017.

## **Raised Road Tables**

8. There is not much speeding over the 30 mph speed limit on Bridge Street, especially at the junction with Onslow Street. However travelling at the 30 mph limit through the junction could be considered an inappropriate speed given the large number of pedestrians that could be crossing or at the edge of the road waiting the cross. Therefore the provision of raised road tables at the crossing points would help to slow traffic down and highlight the presence of pedestrians to vehicle drivers travelling through the junction. Slower speeds through the junction would reduce the risk of collision, and would reduce the consequences should any collision take place.
9. Appendix 1 shows two initial design options for providing raised road tables at this location. As well as reducing vehicle speeds, the new designs have moved the pedestrian crossing points on the northwest and southwest corners of the junction a few metres to the west. This will improve the visibility between pedestrians and vehicles approaching eastbound on Bridge Street.
10. Further work will be undertaken to refine the designs following safety audit and internal consultation before officers will present the final preferred option to members.

## **Review of Traffic and Pedestrian Signal Sequence**

11. Currently the traffic signals on the gyratory (including at the junction of Bridge Street with Onslow Street) work as part of an Urban Traffic Control system. This means the level of traffic on each arm entering the gyratory and the level of traffic within the gyratory is monitored and the traffic signal timings are adjusted automatically to try to maximise the throughput of vehicles. This means that the signal timings for southbound traffic on Onslow Street entering the gyratory will vary in comparison with the signal timings for northbound traffic exiting Bridge Street onto Onslow Street. This means that pedestrians are required to cross Onslow Street using pedestrian signals in two stages, which on some occasions may conveniently take place one immediately after the other or at the same time, whereas on other occasions may require the pedestrian to wait in the central island for a period of time. This can create confusion, frustration and could lead to risk taking by pedestrians.
12. Appendix 2 shows a proposed new signal sequence that would allow pedestrians to cross the Onslow Street arm during one stage. This new arrangement will allow pedestrian countdown signals to be introduced.
13. The proposed pedestrian countdown signals will indicate to the pedestrians the amount of time in seconds that are available to cross the road at the end of the pedestrian phase. This reduces uncertainty and will hopefully reduce risk taking by pedestrians.

14. Pedestrian count down signals were first trialled in the UK in London in 2010, and are now in wide use across London (see the example below). The Department for Transport approved the use of pedestrian countdown signals in other local authority areas in April 2016.



15. Further work will be required to assess the impact of the proposed new signal sequence and timings on traffic flows, using computer traffic simulation modelling. It is possible that there could be a trade-off between improved pedestrian facilities and increased delay to motorised traffic that will need to be taken into account when deciding how to proceed.

#### **Potential Major Scheme**

16. Funding was sought from the Enterprise M3 Local Enterprise Partnership through an Expression of Interest submitted on 31 March 2016 by Guildford Borough Council for a project that would reconfigure the gyratory from one way to two way traffic-flow in phases, leading to the eventual closure of Bridge Street to traffic other than buses. The aim of the bid was to monitor and assess the impacts on traffic and pedestrian flows and safety of each phase. The changes would then be implemented permanently if successful.
17. The amount of money that the Local Enterprise Partnership have since indicated is available for investment in the Guildford area is insufficient to enable the scheme described above to be implemented during the next funding period 2018-21. Therefore officers in Surrey County Council and Guildford Borough Council are considering alternative lower cost options for investment in highway improvements and traffic signal systems that could be implemented during this period that would facilitate the implementation of a major scheme to reconfigure the gyratory in the future.

## Estimated Costs

18. Subject to further refinement of the designs shown within Appendix 1, it is estimated that the cost for implementation of the scheme (including road tables, improvements to the traffic signal sequence, pedestrian countdown and traffic modelling) would be £80,000 to £100,000.

## Conclusions

19. Analysis has highlighted a pattern of pedestrian casualties at the junction of Bridge Street with Onslow Street in Guildford. This report provides an update on development of highway and traffic signal improvements to improve the safety of pedestrians at this location.
20. It is expected that new stop lines will be implemented before the end of March 2017. Further work will be undertaken to refine the designs for providing road tables at the crossing points. Proposals for changing the traffic and pedestrian signal sequence and incorporating pedestrian countdown signals will also be refined and computer simulation traffic modelling will be undertaken to assess the impact of the proposals on traffic flows.
21. It is estimated that the scheme would cost £80,000 to £100,000 to implement.

## Recommendations:

22. It is recommended that officers continue to undertake work to refine the design proposals before presenting the final options to the Guildford Local Committee for approval and funding consideration.

## Next steps:

Officers will refine the designs and present final options to the Guildford Local Committee for approval and funding consideration.

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### Sources/background papers:

Road Safety Improvements on Bridge Street, Guildford, Report to Economic Prosperity, Environment and Highways Board, 9 June 2016

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