SURREY COUNTY COUNCIL

LOCAL COMMITTEE (GUILDFORD)

DATE: **19 September 2017**

LEAD OFFICER: **Duncan Knox, Road Safety Team Manager**

SUBJECT: **Pedestrian Safety on Bridge Street, Guildford**

DIVISION: **Guildford South West and Guildford South East**

SUMMARY OF ISSUE:

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. It was subsequently considered by the Economic Prosperity, Environment and Highways Board on 9 June 2016 and then again on 2 March 2017 where it was 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.

RECOMMENDATIONS:

The Local Committee is asked to agree that

(i) The proposals to provide raised road tables at the signalised crossing points across Onslow Street at the junction with Bridge Street, described within this report as Option B, proceeds to implementation. This will be funded from central county council budgets separate from the budget allocated to the local committee for highway improvements.

(ii) A traffic regulation order to implement the raised road tables will be advertised and authority delegated to the Area Highways Manager in consultation with the Chairman, Vice-Chairman and Divisional Members for Guildford South West and Guildford South East to consider any objections before proceeding.

REASONS FOR RECOMMENDATIONS:

Analysis has highlighted a pattern of pedestrian casualties at the junction of Bridge Street with Onslow Street in Guildford. The proposals presented here will help to reduce the risk of further pedestrian collisions and will improve the facilities for pedestrians when crossing the road at this important link between the railway station and town centre.

1. INTRODUCTION AND BACKGROUND:

1.1 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 referred to the Economic Prosperity, Environment and Highways Board.

1.2 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.

1.3 Consequently a further report was presented to the Economic Prosperity, Environment and Highways Board on 2 March 2017 which provided an update on the development of proposals as well as a summary of the latest position with respect to a potential major scheme for the gyratory. The Board resolved 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.

2. ANALYSIS:

2.1 Every time there is a collision resulting in personal injury reported to the police, the police record the details to a national standard format called STATS19. This information is shared with the local highway authority Surrey County Council and the Department for Transport to identify locations where collisions are taking place and to inform upon measures to reduce road casualties. Summary information is available to the public via www.crashmap.co.uk.

2.2 A full analysis of the collisions taking place on Bridge Street was provided in the 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.

2.3 Instead analysis of all the injury collisions taking place on Bridge Street 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 (to the end of February 2016), 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. Since this analysis was completed there have been a further eleven slight injury casualties (to the end of May 2017), seven of which were pedestrians, and five of which took place at the Bridge Street junction with Onslow Street. It should be noted that while a small number of these took place in the late evening/early morning and could be associated with the night-time economy, there are many other pedestrian casualties taking place at all other times of the day.

2.4 The analysis above shows that this location remains as a serious pedestrian casualty hotspot. Consequently designs for a highway scheme to improve pedestrian safety at this location have been progressed and are described below.

3. OPTIONS:

3.1 Work has already been completed to reposition the stop line slightly further back from the dashed line delineating the edge of the pedestrian crossing. The rationale for this is to provide as much of a buffer between the vehicles setting off from the stop line and any pedestrians that may still be on the crossing, or may be tempted to cross at the end of the pedestrian phase. The following describes the options for more substantial improvements that could improve the safety at this junction.

OPTION A: Do nothing

3.2 One option is to “do nothing” and leave the junction as it is. However based on the history of collisions in the past it is highly likely that there would continue to be pedestrian road casualties at this site in the future if no improvements are made to the pedestrian crossing facilities. Other improvements to Guildford Town Centre could increase the footfall on this crossing too. This option is not recommended.

OPTION B: Provide raised road tables on the existing crossing

3.3 In general drivers do not exceed the 30 mph speed limit on Bridge Street, especially at the junction with Onslow Street, due to the nature of the road layout. However travelling close to the 30 mph limit through the junction is an inappropriate speed given the large number of pedestrians that could be crossing or at the edge of the road waiting to cross. Therefore the provision of raised road tables at the main crossing points would help to slow traffic down and highlight the presence of pedestrians to vehicle drivers travelling through the junction, as well as encourage pedestrians to use the designated crossing points. Slower speeds through the junction would reduce the risk of collision, and would reduce the consequences should any collision take place. The proposal would reduce slightly the speeds of vehicles travelling through the junction, but would cause only negligible delay to overall journey times.

3.4 Appendix 1 shows Option B design for providing raised road tables on the existing crossing points at this location. It can be seen that a road table has not

been provided on the southwest corner of the junction. This is because of the comparatively tight radius of the curve in the road which means that if there was a ramp, the wheels of vehicles would not be perpendicular to the exit edge of the ramp. This could cause a hazard to motorcyclists and would cause rocking of other vehicles, which would be particularly uncomfortable and hazardous for bus passengers. The analysis of the pedestrian casualties showed that the overwhelming majority took place on the other arms of the junction (across Onslow Street) rather than on the southwest corner of the junction.

3.5 The guide price for Option B is £112,000, though with 25% added for risk, a conservative estimate of the cost would be £140,000.

OPTION C: Reposition pedestrian crossing points, provide raised road tables, and improve the traffic signal sequence and signals for pedestrians

3.6 Appendix 2 shows Option C design proposal. For this design the pedestrian crossings on the northwest and southwest corners of the junction have been repositioned a few metres to the west. This would help to improve the visibility between pedestrians waiting to cross and eastbound vehicles approaching on Bridge Street (though the view could still be obscured by other pedestrians on the footway).

3.7 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 throughout the system. As such 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. On some occasions this may conveniently allow the pedestrians to cross the whole junction in one go, but more frequently requires the pedestrian to wait in the central island for a period of time. This can create confusion, frustration and could contribute to risk taking by pedestrians.

3.8 Consequently officers have investigated a new signal sequence (shown in Appendix 2) that would allow pedestrians to cross the whole of the Onslow Street arm during one stage. This sequence would also allow pedestrian countdown signals to be introduced. These indicate to the pedestrians the amount of time in seconds that remain to cross the road at the end of the pedestrian phase before the red man appears. This replaces the standard “blackout” period that usually takes place after the end of the green man and is intended to reduce uncertainty and risk taking by pedestrians. Pedestrian countdown signals were first trialled in the UK in London in 2010, and are now in wide use at hundreds of sites across London. Following the successful use of this equipment in London, the Department for Transport approved their use across the country in April 2016. They are now increasingly being used in other local authority areas across the UK.

3.9 However an important consideration of the proposed changes to the traffic signal sequence and timings is the likely effect that the changes would have on vehicle journey times through the town centre. Consequently the traffic signal sequence and timings have been modelled using “Paramics” micro simulation modelling software. This predicts that in both the AM (08:00-09:00) and PM

(17:00-18:00) peak hours, there would be increases in delay and mean travel time. Specifically, the modelling predicts an increase in average mean travel time for vehicles travelling through the gyratory and approach roads of 8.4% in the AM peak (equivalent to an average increase in travel time per vehicle of 27 seconds). In the PM peak the average mean travel time increases by 10.9%, which is equivalent to an increase of 38 seconds per vehicle.

3.10 The modelling described above does not take into account the possible impacts of separate proposals to trial a one way system and road closure halfway along Walnut Tree Close. It is intended that this scheme will be subject to trial later this year to measure the impact on travel patterns and delays to vehicles as drivers seek alternative routes and change their travel behaviour. This scheme is likely to have a significant impact on traffic flows on the gyratory as drivers seek alternative routes, and it is not clear what the consequences will be (hence the trial). If there are any negative impacts on traffic flows on the gyratory as a result of the trial, these could be compounded by the Option C proposal described above.

3.11 Although the provision of pedestrian countdown signals described above would improve the convenience and user experience of the crossing for pedestrians, it is not clear that it would directly address the casualty problem. This is because the vast majority of the pedestrian casualties have taken place as the pedestrians have stepped into the road from the far western or eastern footways, and not from the central island. Also we are not aware of any pedestrian countdown facilities in situ elsewhere that have a central island.

3.12 The guide price for Option C is £207,000, though with 25% added for risk, a conservative estimate of the cost would be £259,000.

Recommended Option

3.13 It is recommended that Option B is chosen as the preferred scheme. This is because the provision of the road tables are likely to have the greatest impact in terms of improving safety. Although Option C with pedestrian countdown may improve the crossing experience for pedestrians, it is not clear that the additional countdown facilities would directly address the casualty problem. Crucially Option C would also result in significantly more delay for motor vehicles on the roads in and around the gyratory. There is also due to be a trial of a new one way system and road closure half way along Walnut Tree Close which will have an impact on traffic flows on the gyratory. The cost of Option C is also much greater at £259,000 compared with £140,000 for Option B.

4. CONSULTATIONS:

4.1 The proposals presented here have been developed and discussed with county council colleagues from Area Highways, Traffic Systems, Transport Studies and with colleagues from from Surrey Police's Road Safety and Traffic Management team and Guildford Borough Council's Planning and Regeneration Directorate.

5. FINANCIAL AND VALUE FOR MONEY IMPLICATIONS:

5.1 The guide cost estimate for implementing the recommended Option B scheme (including risk) is £140,000. The Department for Transport publish values for the prevention of road collisions for use in cost benefit analyses thus (June 2016):

- Fatal injury collision: £2,005,664
- Serious injury collision: £229,756
- Slight injury collision: £24,193

5.2 On average other highway safety schemes across Surrey have reduced casualties by 40 per cent. Therefore it can be seen that if the scheme is successful it is likely to have a significant cost benefit ratio based on the value of the casualties likely to be prevented.

6. EQUALITIES AND DIVERSITY IMPLICATIONS:

6.1 The proposed improvements to the pedestrian crossing facilities would have a positive impact in that it would make it easier and safer for people with mobility impairment to cross the road.

7. LOCALISM:

7.1 The proposals presented here have been developed following the submission of a petition from over 12,000 people expressing their concerns over the safety of pedestrians on Bridge Street after a collision that resulted in the death of two pedestrians.

8. OTHER IMPLICATIONS:

Area assessed:	Direct Implications:
Crime and Disorder	No significant implications arising from this report.
Sustainability (including Climate Change and Carbon Emissions)	Set out below.
Corporate Parenting/Looked After Children	No significant implications arising from this report.
Safeguarding responsibilities for vulnerable children and adults	No significant implications arising from this report.
Public Health	Set out below.

8.1 Sustainability & Public Health implications.

The proposals would reduce road danger for pedestrians and so would help support more sustainable modes of travel and walking which is healthier for the participants.

9. CONCLUSION AND RECOMMENDATIONS:

9.1 Analysis of the history of road casualties on Bridge Street found that 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 part of a pattern of similar collisions that could be ameliorated by highway improvements. Instead the analysis highlighted a long history and pattern of

pedestrian casualties focussed at the eastern end of Bridge Street (at the junction with Onslow Street) which involved pedestrians being struck by vehicles while in the carriageway.

9.2 Two safety scheme Options B and C have been designed that both include the provision of raised road tables to slow traffic at the crossing points. The more expensive Option C also includes repositioning of the stop lines to improve visibility between pedestrians and drivers, and changes to the phasing and staging of the signals to improve the crossing for pedestrians (incorporating countdown signals). However Option C would result in increased delay for vehicles in and around the gyratory and it is not clear that the additional of the countdown signals would directly address the casualty problem. Therefore Option B is recommended.

10. WHAT HAPPENS NEXT:

10.1 Following approval by the local committee, detailed design will proceed on the preferred Option during the current financial year with a view to implementation in the following financial year.

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Consulted:
Surrey Police,
Area Highways Traffic Systems,
Transport Studies,
Guildford Borough Council's Planning and Regeneration Directorate

Background Annexes: None

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