

Committee(s)	Dated:
Streets & Walkways Sub Committee	23rd February 2015
Subject: Museum of London Roundabout - Road Danger Reduction Measures – Monitoring Report	Public
Report of: The Director of the Built Environment	For Decision

Summary

On 20th October 2014, Members approved a scheme to improve road safety at the London Wall/Aldersgate Street roundabout. Part of the approval included changing the size and layout of the roundabout on a trial basis, with the impacts of the change being monitored. If the changes were successful, it could be made permanent.

On 6th December 2014, road markings were implemented to commence the trial. Monitoring of the trial has been quite extensive, with daily observations and specific traffic data been obtained.

The trial has been very useful in that it has shown which elements work well and which elements require further attention. Although there have been journey time increases, changes have been scheduled to improve the operation of the trial without compromising the original aims of the scheme. These changes include restoring two traffic lanes on the London Wall approach. This is expected to restore journey times and queue lengths to previous levels and will therefore provide a better balance between traffic movement and the needs to improve road safety.

The remainder of the measures have been found to work very well and no further changes to these are considered necessary at this stage. The narrower lanes and circulating area of the roundabout has reduced speeds and conflicts. There have been no collisions since the start of the trial and observations have shown that cyclists generally use the layout as intended. However there have been some perceived concerns regarding cyclists being “squeezed” in the roundabout when heading southbound in the roundabout. It is therefore recommended that the trial be extended for a further 3 months to enable the recent scheduled changes and the potential cycle safety concerns to be further monitored and if necessary, to allow for further changes to be made.

Recommendation(s)

Members are asked to:

- Note the outcome of this trial so far and agree to an extension of the trial for a further 3 months.
- Agree that a further report be brought back to this Committee to decide whether to make the scheme permanent following the extended trial.

Main Report

Background

1. On 20th October 2014, Members approved a scheme to improve road safety at the London Wall/Aldersgate Street (Museum of London) roundabout. The measure consists of road markings and lighting improvements. The road markings were intended to reduce the width of the roundabout, improve lane discipline, and reduce traffic speeds and conflicts.
2. Members also agreed that, due to the potential impact on traffic capacity, the road marking proposals would be introduced on a trial basis and be closely monitored by officers. If the trial was considered successful, it would be made permanent. As there are no traffic implications arising from the lighting improvements, these were to be implemented permanently.
3. On 6th December 2014 the trial layout was introduced. This new layout has reduced the number of approaching traffic lanes from two to a single lane on all arms of the roundabout as well as reducing the circulatory area of the roundabout. A plan of the trial layout is included in Appendix A.

Current Position

4. The trial measures have been in operation since 6th December 2014. Since then and following officer observations, a number of minor additions and amendments (such as traffic cones and signage) have been added to improve the effectiveness of the scheme.
5. The lighting works are now scheduled to commence in mid-February and will be completed by the end of February 2015.
6. Monitoring of the trial has been quite extensive. Details of the results of the monitoring are provided below.

Monitoring

7. The performance and safety of the trial layout has been monitored using two methods. Firstly by officers carrying out daily site observations and secondly, by commissioning traffic data collection. The findings of these are summarised below.

Daily Site Observations

8. Site observations have shown that the scheme has been largely successful but there have also been some traffic implications. The successes include:-
 - a. The narrowing of the circulating area whilst still providing sufficient width to avoid “pinching” of cyclists has been effective at guiding motorists to use it in a single lane.

- b. The narrower carriageways have reduced traffic speeds both approaching the roundabout as well as going around it.
 - c. The “give way” markings have been moved closer to the roundabout where the inter-visibility of all users has been improved.
 - d. There have been no injury collisions since the trial. The majority of the previous collisions were to cyclist in the north-eastern corner. The markings have therefore separated cyclists from motor vehicles at this location therefore reducing risks. This is expected to reduce collisions from occurring here.
9. The main traffic implications relate to the westbound approach to the roundabout (London Wall). Observations have shown that there are much longer queues and delays on this approach than before. These delays are greatest during the morning period where delays have been observed to extend to Moorgate and can take over 10 minutes to proceed beyond the roundabout. Queuing traffic has also been observed to tail back beyond Moorgate on occasions but because of other variables, it is not reliable to simply attribute these delays to the changes at the roundabout.
10. There are also some delays during the afternoon (around lunch time) and evening peak periods along London Wall. The delays observed during these times are intermittent and sometimes extend back as far as Brewers Garden (east of Wood Street junction) and taking 5 to 6 minutes longer before reaching the roundabout.
11. During the morning and evening peak periods, there are many more pedestrians using the zebra crossing on London Wall. This severely restricts westbound traffic flows into the roundabout and therefore is the main factor for the delays. In addition, there are also temporary road and lane closures on Ludgate Hill, Appold Street, Sun Street, Moorgate and London Wall itself. It is considered that these have contributed to delays.
12. Observations have shown that the Aldersgate Street and Montague Street arms and the circulating area of the roundabout are operating very well with no, or very limited, traffic implications or delays.

Traffic Survey Data

13. Queue length, journey time and video surveys were undertaken in late January and early February 2015. Analysis of these data has shown similar results to those observed by Officers. The most significant traffic impact is during the morning period between 8am to 11am along London Wall where traffic is queuing beyond Wood Street. During this period, there is an hour (8.45am to 9.45am), where traffic queues extend back to Moorgate. Data beyond Moorgate has not been obtained for the same reason as explain in para 9. Again on London Wall, there are also delays during the afternoon and evening peak periods. The results of the London Wall queue length and journey time surveys has been summarised and are included in Appendix B. The table below provides a comparison of the journey times before and during the trial for the London Wall approach (rounded to the nearest half minute).

Journey Time Comparison

	London Wall Approach - Journey Times		
	AM Peak	Afternoon Peak	Evening Peak
Before	3 minutes	1 ½ minutes	1 ½ minutes'
During trial layout	11 ½ minutes	6 minutes	7 ½ minutes
Difference	+ 8 ½ minutes	+ 4 ½ minutes	+ 6 minutes

14. Journey times and queue lengths on Montague Street and Aldersgate Street (north) appear unchanged throughout the day from the layout prior to the trial.

Improvements

15. Officers recognise that the extended delays are more significant than originally envisaged. This is probably due to the frequent use of zebra crossing by pedestrians and because of the temporary traffic management arrangements employed elsewhere. Proposals for reducing the impacts without compromising on the original aims (road danger reduction) of the scheme have been developed and it is anticipated that this will be in place by the time this committee meets. This includes restoring two approach lanes (but separating the traffic movements) on London Wall. The near side lane will be marked out as a left turn only lane into Aldersgate Street (south) whilst the off side lane will be a right turn only for northbound or u-turning traffic. The change is expected to restore traffic capacities and queue lengths to levels before the trial. Furthermore, separating these traffic movements will continue to encourage motorists to use the roundabout in a single lane and will therefore also reduce conflicts that would otherwise be inherent with two un-guided lanes. The cycling elements on the westbound London Wall approach and within the south-eastern sector of the roundabout will be removed to enable the two lanes to work. These changes are considered to provide a better balance between traffic flows and road safety. The revised layout is shown in Appendix C. An update on how the improvements are operating will be provided at your meeting.
16. At this stage, no further changes are considered necessary to the remainder of the scheme. However there have been some perceived concerns regarding cyclists being “squeezed” in the roundabout when heading southbound in the roundabout. It is therefore recommended that the trial be extended for a further 3 months to enable the recent scheduled changes and the perceived cycle safety concerns to be monitored and if necessary, to allow for any further changes to be made. Officers will also seek comments from the cycling community with regard to the ease of use of the new layout and any feedback, along with accident data received will be considered alongside the trial extension.

Implications

17. The changes to restore two traffic lanes on the London Wall approach and to the south-eastern sector of the roundabout have been estimated to cost £2,500. This can be funded from DBE’s Traffic Management Budget of £117,000 in 2014/15

Conclusion

18. The trial scheme has been very useful in that it has shown which elements of the scheme have worked well and which requires further attention. Although there have been delays, which have been longer than first envisaged, changes to the scheme have been commissioned that will improve the operation of the scheme without compromising its original aims i.e. improved road safety. This includes the restoration of the two lanes on the London Wall approach, which is expected to restore journey times and queue lengths to previous levels. This will provide a better balance between traffic movement and the need to improve road safety.
19. The remainder of the measures have been found to work satisfactorily and no further changes to these are currently considered necessary. However, if an extension to the trial is approved, and significant problems remain, changes can be considered together with a further report being brought back to this committee for consideration.

Appendices

- Appendix A – Trial layout plan
- Appendix B – Traffic Survey Data
- Appendix C – Layout plan of the scheduled changes

Background Papers

Museum of London Roundabout – Proposed Road Danger Reduction Measures
(Streets & Walkways Sub Committee)

Albert Cheung
Project Manager

T: 020 7332 1701

E: albert.cheung@cityoflondon.gov.uk