



Barclays Cycle Superhighway Route 8 CP15 Chelsea Bridge

Safety Audit Response Report

for

Stage 3 Road Safety Audit

Ref: 1478/CSH08-CP15/VAR/2011RR

Report Date 29 June 2012

Report Version Final



1.0 INTRODUCTION

- 1.1 This report details the Client Organisation's response to the Stage 3 Road Safety Audit Report carried out on Barclays Cycle Superhighway Route 8 (CS8) Construction Package 15 (CP15) by the Road Safety Audit Team within the TfL Capital Development Team (CDT).
- 1.2 The safety audit was carried out on the 19th September 2011 and the results were issued in report reference 1478/CSH08-CP15/VAR/2011 Rev B.
- 1.2 This report was compiled by the CDT Capital Development Team with input from AECOM (Designer).
- 1.3 The terms of reference of this response report are as described in TfL Procedure SQA-0170, Issue 4.
- 1.4 Where a safety audit recommendation is accepted, this report details the actions proposed to comply with the recommendation. Where a safety audit recommendation is rejected, this report details the justification for rejection.

2.0 RESPONSE TO ITEMS RAISED AT THE STAGE 3 ROAD SAFETY AUDIT

2.1 SAFETY AUDIT PROBLEM REF (3.1.1)

Location: A – Northbound approach to junction with Grosvenor Road

Summary: Risk of right turning cyclists conflicting with motor traffic

Detailed description of the problem:

The current layout for northbound cyclists includes an un-shaded nearside cycle lane, CSH logos in the offside lane together with a coloured ASL at the stopline on the approach to this junction. This layout implies that users of the CSH are advised to make their way over to the offside lane following the termination of the bus lane. Since there will be some straight-ahead traffic in this lane cyclists with either adopted a position towards the offside or try to dominate the lane by travelling in its centre. This will result in cyclists travelling between opposing flows of traffic as they approach the junction or being pressurised by drivers wishing to overtake so being exposed to a high risk of collision. In addition the offside lane narrows to 2.8m towards the junction which is considered extremely hazardous for cyclists to attempt to travel alongside other motor vehicles.



RECOMMENDATION

It is recommended that:

- A virtual cycle lane is provided through the junction from ASL to the turn right reservoir although the Police are not keen on the application of virtual lanes at any location. In the event, an alternative of CSL patches is recommended.
- The third CSH panel, as shown on sheet 4 of the drawings but currently missing, should be provided

DESIGN ORGANISATION RESPONSE

- a) Recommendation rejected: At the northern end of the junction there is already a cycle lane reservoir where cyclists wait before continuing their journey eastbound into Grosvenor Road. The design improves on the existing provision. The provision of extra cycle patches in the middle of a busy junction is not recommended and could be confusing to traffic approaching from different directions. Furthermore, due to the high volume of heavy vehicles potentially over running the markings, turning vehicles are likely to wear away the markings very quickly and therefore would require a high level of maintenance.
- b) Recommendation accepted: The CSH patch on drawing no. 60144895/CS8/CP15/DD/100/004 Rev A, should be installed on site.

CLIENT ORGANISATION RESPONSE

- a) As per the Designer's Response this recommendation is rejected. This would not address the issue of cyclists moving across to access the ASL on the approach and the Client does not believe it would therefore have any benefit.
- b) The additional patch cannot be implemented as the highway authority (Royal Borough of Kensington & Chelsea) would not permit it.

3.2 SAFETY AUDIT PROBLEM REF (3.2.1)

Location: B – Northbound approach to junction with Grosvenor Road

Summary: Risk of right turning cyclists conflicting with motor traffic

Detailed description of the problem:

The existing cycle lane enters the existing blue-coloured ASL allowing cyclists to take up position for the right turn manoeuvre during any red time. If the northbound traffic entering the junction has a green, then cyclists using this lane have to wait for the end of the phase before positioning themselves in the ASL. If the nearside cycle lane was coloured in CSH blue, this would afford a choice of route to cyclists, particularly to cyclists less confident of accessing and using the offside lane. Having accessed the ASL, cyclists will be at risk of collision since there will be a mixture of straight-ahead and right turn traffic starting up from the offside lane.



RECOMMENDATION

It is recommended that:

- The nearside cycle lane over Chelsea Bridge is included in the CSH and coloured blue appropriately,
- The ASL should give the right turn cyclists priority in accessing the right turn reservoir, and
- Provide additional guidance in the form of a virtual cycle lane to assist in informing both cyclists and motorists of the intended cycle route. The reservations expressed by the Police on the use of virtual lanes also apply.

DESIGN ORGANISATION RESPONSE

- Recommendation rejected: The traffic authority owning the bridge will not allow blue surfacing on the bridge as agreed with TfL.
- Recommendation rejected: A central feeder lane has been investigated, however due to the width constraints, it is not possible to maintain two traffic lanes on network capacity grounds as agreed with TfL.
- Recommendation rejected: It is not recommended due to Police concerns over the virtual lanes and maintenance issues regarding the replacement of CSH patches by high volumes of traffic (see also response to problem 3.1).

CLIENT ORGANISATION RESPONSE

- Designer's Response agreed. In addition, the ahead movement is not part of BCS8.
- Designer's Response agreed. The ASL provided does afford priority for cyclists to reach the refuge; it is not clear what else could be done to improve it. For example, if an offside-only ASL was provided then that would penalise ahead movements (which is a strong desire line) for no benefit.
- See 3.1

3.3 SAFETY AUDIT PROBLEM REF (3.2.2)

Location: C - start of cycle lane on Chelsea Bridge

Summary: Risk of side-swipe conflicts

Detailed description of the problem:

There is a gap of approximately 20m between the end of the bus lane and the start of the taper with another 15m before the full width of the cycle lane is achieved.

Traffic will start to take up position across the two lanes immediately after the bifurcation marking (Diag. 1050), those entering the nearside lane only having to move out again at the start of the cycle lane. This double movement could lead to side-swipe crashes over the short section.

It is also noted that the with-flow cycle lane sign (Diag. 959.1) which is intended to be positioned on the bridge support is mounted in such a way that it is well out of the sight line of both cyclists and motorists.



RECOMMENDATION

It is recommended that:

- The cycle lane commences earlier immediately, without a taper, out of the bus lane.
- The sign to Diag 959.1 is relocated nearer to the carriageway so it can be seen by both cyclists and motorists.

DESIGN ORGANISATION RESPONSE

- Recommendation rejected: Buses travelling northbound require this 20m gap to merge into lane 1 with the general traffic to avoid the mandatory cycle lane. No vehicles except cyclists are able to use the mandatory cycle lane.

- b) Recommendation accepted: The bridge provides limited suitable locations for cycle signs. However, if required the sign can be situated on an offset bracket, enabling the sign to be closer to the carriageway but still maintain a minimum lateral clearance of 450mm from the kerb edge

CLIENT ORGANISATION RESPONSE

- a) Designer's Response agreed. The space between the end of bus lane and the start of the mandatory cycle lane is required to enable buses to merge out of the bus lane and avoid running into the cycle lane. The taper is as per design standards.
- b) The recommendation to relocate the signage is rejected. As above it is not proposed to move the start of the cycle lane. Also, Chelsea Bridge is a listed structure therefore no additional posts can be erected and signage has to be fixed to the existing structure - the Client does not believe there are any alternative sites. The Client believes the visibility of the existing signage is clear.

3.4 SAFETY AUDIT PROBLEM REF (3.2.3)

Location: D - start of bus lane on Queenstown Road

Summary: Risk of cycle/bus conflicts

Detailed description of the problem:

Sheet 1 of the drawings shows the addition of blue non-HFS CSH surfacing to be applied to the carriageway immediately before and alongside the bus stop near to the park entrance. This has not been laid in accordance with the drawings. There still exists some red surfacing which is outside the limits of the bus stop.



RECOMMENDATION

It is recommended that the CSH blue surfacing is applied as shown on the drawings supplied at the commencement of the bus lane.

DESIGN ORGANISATION RESPONSE

Recommendation rejected: The drawing shows the area to be surfaced in red SMA not blue. The photograph in the report shows black SMA has been used. Despite the difference in the surfacing colouration, it is unclear what safety issue is posed at this location.

Remarking of the existing faded bus cage markings and text would help to highlight the conspicuity of the bus cage and improve the scheme aesthetics at this location. This would avoid costly resurfacing works.

CLIENT ORGANISATION RESPONSE

The recommendation is rejected. The design drawing shows red surfacing to be used in the bus lane, which is what has been installed on site. Blue surfacing is never used on the outside of a bus lane or across its full width.

3.5 SAFETY AUDIT PROBLEM REF (3.3.1)

Location: E – On-road cycle lane on Queenstown Road at Park Entrance

Summary: Loss of control collisions.

Detailed description of the problem:

This section of cycle superhighway crosses a well used vehicular access/egress to Battersea Park, which will result in this section being traversed continually by motor traffic, particularly buses along Queenstown Road, and turning traffic to and from the park.

The auditors have reservations regarding the specification of the material that has been used for cycle superhighway lanes and whether it is sufficient to withstand being driven over by other heavier vehicles and to continue to provide sufficient skid resistance in wet conditions.



RECOMMENDATION

It is recommended that a material with a greater skid resistance is used in locations on the highway where other traffic may frequently overrun the cycle lane.

DESIGN ORGANISATION RESPONSE

The surfacing installed is in accordance with the specification as agreed with TfL. It is understood that the surface materials have been tested and have been deemed suitable for this application.

However, in acknowledgement of the concerns raised by the audit team, TfL may deem it appropriate to undertake localised testing of the skid resistance of the blue surfacing. If issues of skid resistance are identified, an alternative surface material or other mitigating measures may be required.

CLIENT ORGANISATION RESPONSE

The Client accepts that there is a need to review blue surfacing performance over time, and have commissioned a comprehensive series of tests to identify the scale of any issues and to recommend - and then undertake - any necessary remedial measures.

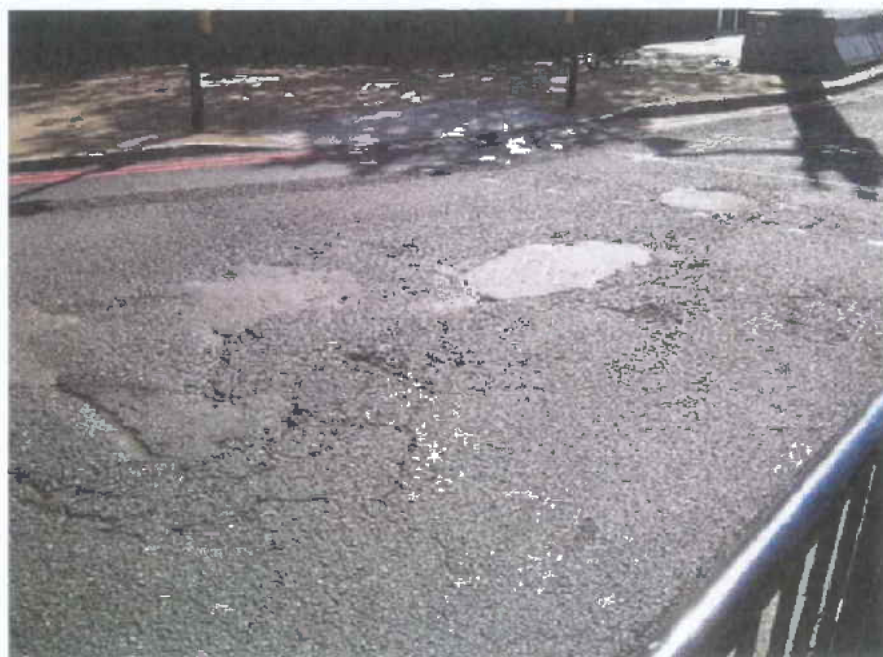
3.6 SAFETY AUDIT PROBLEM REF (3.3.2)

Location: F – southbound exit from Grosvenor Road junction

Summary: Risk of loss of control collisions

Detailed description of the problem:

Sheet 5 of the drawings shows an area at the southbound exit from this junction which is earmarked for surface treatment. However judging from the state of the carriageway at this location it would be apparent that no remedial work has recently been undertaken. The current state of the surface constitutes a hazard particularly for two wheel vehicles.



RECOMMENDATION

It is recommended that the area of carriageway within the Grosvenor Road junction is treated in accordance with that as specified in the scheme.

DESIGN ORGANISATION RESPONSE

Recommendation accepted: Agreed - carriageway work specified should be carried out following consultation and agreement with TfL.

CLIENT ORGANISATION RESPONSE

The recommendation is accepted. The resurfacing was not carried out as part of the works due to the strict constraints on working hours and therefore the limited time available to deliver the scheme. It is proposed that the Client liaise with the highways maintenance team to agree when the resurfacing could be carried out.

3.7 SAFETY AUDIT PROBLEM REF (3.3.3)

Location: G – Grosvenor Road junction and approaches

Summary: Risk of loss of control collisions

Detailed description of the problem:

Sheet 4 of the drawings shows an extensive area consisting of much of the junction and its approaches being treated with either Charcoal grey high friction surfacing or, in the case of Chelsea Bridge, a resin-based high skid resistant surfacing with buff Chinese bauxite chippings. None of this work appears to have been completed. The existing state of the surfacing within the junction is not good and increased use by cyclists will need an improvement to offset the increased risk of loss of control collisions.





NOTE

With the exception to the recommendations in 3.1.1 and 3.2.1c regarding the application of a virtual lane, the Traffic Police support all other recommendations.

RECOMMENDATION

It is recommended that the area of carriageway within the Grosvenor Road junction is treated in accordance with that as specified in the scheme.

DESIGN ORGANISATION RESPONSE

Recommendation accepted: Agreed - carriageway work specified should be carried out following consultation and agreement with TfL.

CLIENT ORGANISATION RESPONSE

The recommendation is accepted. This will be addressed within the action proposed in the Client Response to issue 3.6.



3.0 CLIENT ORGANISATION STATEMENTS

3.1 Client Officer's Statement

In accordance with SQA-0170, Issue 4, I certify that I have reviewed the items raised in the Stage 3 Safety Audit Report. I have given due consideration to each issue raised and have stated my proposed course of action for each in this report. I seek the Senior Client Officer's endorsement of my proposals.

Name [Redacted]
Position Programme Manager
Organisation Transport for London

Signed [Redacted] **Dated** 29/06/12

3.2 Senior Client Officer's Statement

I accept these proposals by the Client Officer.

Name [Redacted]
Position Head of Capital Development
Organisation Transport for London

Signed [Redacted] **Dated** 2/7/2012