

Cycle Superhighways Route 8 Upgrade

Chelsea Bridge / Grosvenor Road

Stage 2 Road Safety Audit

Ref: 2453.03/VAR/A3212/TLRN/2015

Prepared for:

Sponsorship, TfL Road Space Management Directorate (RSM)

By:

Road Safety Audit, TfL Asset Management Directorate

Prepared by: [REDACTED], Audit Team Leader

Checked by: [REDACTED] Audit Team Member

Approved by: [REDACTED]

Version	Status	Date
A	Audit report issued to Client	21/12/2015



1.0 INTRODUCTION

1.1 Commission

- 1.1.1 This report results from a Stage 2 Road Safety Audit carried out on the Cycle Superhighways Route 8 Upgrade, Chelsea Bridge / Grosvenor Road proposals.
- 1.1.2 The Audit was undertaken by TfL Road Safety Audit in accordance with the Audit Brief issued by the Client Organisation on 2nd December 2015. It took place at the Palestra offices of TfL on 17th December 2015 and comprised an examination of the documents provided as listed in Appendix A, plus a visit to the site of the proposed scheme.
- 1.1.3 The visit to the site of the proposed scheme was made on 17th December 2015. During the site visit the weather was overcast and the existing road surface was dry.

1.2 Terms of Reference

- 1.2.1 The Terms of Reference of this Audit are as described in TfL Procedure SQA-0170 dated May 2014. The Audit Team has examined and reported only on the road safety implications of the scheme as presented and how it impacts on all road users and has not examined or verified the compliance of the designs to any other criteria. However, to clearly explain a safety problem or the recommendation to resolve a problem the Audit Team may, on occasion, have referred to a design standard without touching on technical audit. An absence of comment relating to specific road users / modes in Section 3 of this report does not imply that they have not been considered; instead the Audit Team feels they are not adversely affected by the proposed changes.
- 1.2.2 This Safety Audit is not intended to identify pre-existing hazards which remain unchanged due to the proposals; hence they will not be raised in Section 3 of this report as they fall outside the remit of Road Safety Audit in general as specified in the procedure SQA-0170 dated May 2014. Safety issues identified during the Audit and site visit that are considered to be outside the Terms of Reference, but which the Audit Team wishes to draw to the attention of the Client Organisation, are set out in Section 4 of this report.
- 1.2.3 Nothing in this Audit should be regarded as a direct instruction to include or remove a measure from within the scheme. Responsibility for designing the scheme lies with the Designer and as such the Audit Team accepts no design responsibility for any changes made to the scheme as a result of this Audit.
- 1.2.4 In accordance with TfL Procedure SQA-0170 dated May 2014, this Audit has a maximum shelf life of 2 years. If the scheme does not progress to the next stage in its development within this period, then the scheme should be re-audited.
- 1.2.5 Unless general to the scheme, all comments and recommendations are referenced to the detailed design drawings and the locations have been indicated on the plan located in Appendix B.
- 1.2.6 It is the responsibility of the Design Organisation to complete the Designer's response section of this Audit report. Where applicable and necessary it is the responsibility of the Client Organisation to complete the Client comment section of this Audit report. Signatures from both the Design Organisation and Client Organisation must be added within Section 5 of this Audit report. A copy of which must be returned to the Audit Team.

1.3 Main Parties to the Audit

1.3.1 Client Organisation

Client contact details: [REDACTED] – Sponsorship, TfL RSM

1.3.2 Design Organisation

Design contact details: [REDACTED] – Outcomes Design Engineering, TfL

1.3.3 Audit Team

Audit Team Leader: [REDACTED] – TfL Road Safety Audit

Audit Team Member: [REDACTED] – TfL Road Safety Audit

Audit Team Observer: None present

1.3.4 Other Specialist Advisors

Specialist Advisor Details: None present

1.4 Purpose of the Scheme

1.4.1 The Stage 4A Road Safety Audit has been reviewed for Cycle Superhighway (CS) Route 8 which has identified problematic locations along the route. Feasibility and Concept Design has been undertaken to address the safety problems identified at RSA4A at the above mentioned location [Chelsea Bridge / Grosvenor Road] CS8 runs from Wandsworth to the Westminster area and provides a fast route for people to cycle into Central London.*

*Taken directly from the Audit Brief.

1.5 Special Considerations

1.5.1 The traffic signal alterations have not yet been supplied to the Audit Team and therefore the potential road safety implications can not yet be commented on.

2.0 ITEMS RAISED IN PREVIOUS ROAD SAFETY AUDITS

The proposals were subject to a Stage 1 Road Safety Audit carried out in September 2015 by TfL Road Safety Audit (ref: 2199/VAR/A3212/TLRN/2015). Items raised in that report can be summarised as follows:

Problem 3.1.1 Proposed cycle lane may result in increased collisions between right turning cyclists and motorists continuing ahead.

The recommendation has been incorporated into the revised design. Therefore this issue will not be raised again in this Audit report.

Problem 3.1.2 Traffic signal locations may not be immediately visible to cyclists

This problem remains in the detailed design submitted for this Stage 2 and therefore this problem is raised again as 3.1.1 in this Audit report.

Problem 3.1.3 Right turners may encroach into cycle lane and 'squeeze' cyclists.

The recommendation has been incorporated into the revised design. Therefore this issue will not be raised again in this Audit report.

Problem 3.2.1 Proposed lane widths may result in side swipe type collisions.

The recommendation has been incorporated into the revised design. Therefore this issue will not be raised again in this Audit report.

Problem 3.2.2 Proposed westbound alignment may lead to increased collisions.

The recommendation has been incorporated into the revised design. Therefore this issue will not be raised again in this Audit report.

3.0 ITEMS RAISED AT THIS STAGE 2 ROAD SAFETY AUDIT

This section should be read in conjunction with Paragraphs 1.2.1, 1.2.2 and 1.2.3 of this report.

3.1 CYCLE FACILITIES

3.1.1 PROBLEM

Location: A – Chelsea Bridge Road northbound right turn into Grosvenor Road

Summary: Traffic signal locations may not be immediately visible to cyclists

The proposals require cyclists to adopt a carriageway position away from the normal primary stop-line to utilise the two stage right turn. Encouraging cyclists to adopt this position results in them being located in front of the primary traffic signals and therefore relying on the secondary signal to decide when to progress.

The location of the secondary traffic signal may lead to cyclists failing to appreciate when it is safe to cross, with an exacerbated potential for conflict as a result. This is particularly the case if the secondary traffic signal is obscured or not operational.

RECOMMENDATION

Ensure the traffic signals are located in a position where they can be intuitively seen by cyclists.

Design Organisation Response	Accepted / Part Accepted / Rejected
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The proposed location of secondary traffic signal is on the central island on Grosvenor Road, and will be clearly visible to cyclists waiting in the area indicated for two stage right turners. The Chelsea Bridge Road junction does not propose low level/high level signals for cyclists like some other two stage right turn proposed solutions at crossroad junctions. This is owing to the eastbound traffic lanes being separately signalled on a shared stop line. The eastbound ahead/left movement has its own signal stage before the right turn movement is then permitted in the following stage. Traffic Infrastructure (TI) have analysed the specifics of the site and decided having additional low/high level signals for cyclists at this site could lead to confusion for the traffic waiting to turn right, therefore have recommended not to install them at this site.

Traffic Infrastructure (TI) explained the reasoning for this in the following paragraph: *'The secondary signal head arrangement for Chelsea Embankment ahead/left movements will be sited so that it is visible to cyclists in the two stage right turn pocket. There is no early release facility for Chelsea Embankment and so there will be no cycle specific cycle filter aspect for cyclists, who will use the vehicle signal head for indication on when it will be safe for them to proceed with the second stage of their turn. A longer intergreen between Chelsea Bridge traffic losing right of way and Chelsea Embankment ahead/left gaining right of way is proposed to ensure that cyclists in the two stage turn pocket will be able to proceed without obstruction and to reduce the risk of conflict between them and traffic approaching from behind.'*

It is recommended that TI observe the operation of this junction and consider any timing amendments that may be required post construction. TI will also be monitoring the existing two stage right turn movements at Burdett Road and Cambridge Heath Road junctions with Mile End Road (recently implemented as part of the CS2 upgrade scheme) and from this analysing whether consideration should be given to future increases or decreases to the three seconds of additional intergreen time. The

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findings from this monitoring may lead to future changes for the timings at the Chelsea Bridge Road junction.

Client Organisation Comments

Agree with Designer's comments

End of list of problems identified and recommendations offered in this Stage 2 Road Safety Audit

4.0 ISSUES IDENTIFIED DURING THE STAGE 2 ROAD SAFETY AUDIT THAT ARE OUTSIDE THE TERMS OF REFERENCE

Safety issues identified during the audit and site inspection that are considered to be outside the Terms of Reference, but which the Audit Team wishes to draw to the attention of the Client Organisation, are set out in this section. It is to be understood that, in raising these issues, the Audit Team in no way warrants that a full review of the highway environment has been undertaken beyond that necessary to undertake the Audit as commissioned.

4.1 ISSUE

Location: 1 – Chelsea Embankment eastbound approach to the junction.

Reason considered to be outside the Terms of Reference: Item for consideration rather than a defined road safety concern.

The proposed lane designation sign appears to be very close to the junction. In order to aid users to select the correct lane as they enter the three marked lanes on this approach, it may be beneficial to relocate the sign further west. It is noted that consideration may be required of the impact of the existing advanced direction sign which is not shown on the drawings provided.

Design Organisation Response	Accepted / Part Accepted / Rejected
Location of the lane designation sign has been updated. It is now located 35m away from the junction. The existing destination sign has been moved to be located 35m away from proposed sign. Visibility complies with LTN 1/94 'The design and use of Directional Informatory Signs'	
Client Organisation Comments	
Agree with Designer's comments	

5.0 SIGNATURES AND SIGN-OFF

5.1 AUDIT TEAM STATEMENT

We certify that we have examined the drawings and documents listed in Appendix A. to this Safety Audit report. The Road Safety Audit has been carried out in accordance with TfL Procedure SQA-0170 dated May 2014, with the sole purpose of identifying any feature that could be removed or modified in order to improve the safety of the measures. The problems identified have been noted in this report together with associated suggestions for safety improvements that we recommend should be studied for implementation.

No one on the Audit Team has been involved with the design of the measures.

AUDIT TEAM LEADER:

Name: [REDACTED] MCIHT, MSoRSA Signed: [REDACTED]
Position: Principal Road Safety Auditor Date: 21/12/2015
Organisation: Transport for London, Road Safety Audit
Asset Management Directorate
Address: 4th Floor Palestra, 197 Blackfriars Road, London, SE1 8NJ
Contact: [REDACTED]

AUDIT TEAM MEMBER:

Name: [REDACTED] Signed: [REDACTED]
BSc. (Hons), CMILT, MCIHT, MSoRSA
Position: Principal Road Safety Auditor Date: 21/12/2015
Organisation: Transport for London, Road Safety Audit
Asset Management Directorate
Address: 4th Floor Palestra, 197 Blackfriars Road, London, SE1 8NJ
Contact: [REDACTED]

5.2 DESIGN TEAM STATEMENT

In accordance with SQA-0170 dated May 2014, I certify that I have reviewed the items raised in this Stage 2 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 Client Organisation's endorsement of my proposals.

Name: [REDACTED]

Position: Design Engineer

Organisation: Arcadis Consulting Ltd.

Signed: [REDACTED] Dated: 18-01-2016

5.3 CLIENT ORGANISATION STATEMENT

I accept these proposals by the Design Organisation.

Name: [REDACTED]

Position: Senior Sponsor

Organisation: Transport for London

Signed: [REDACTED] Dated: 19/01/2016

5.4 SECONDARY CLIENT ORGANISATION STATEMENT (where appropriate)

I accept these proposals by the Design Organisation.

Name: [REDACTED]

Position: Portfolio Sponsor

Organisation: Transport for London

Signed: [REDACTED] Dated: 19/01/2016

APPENDIX A

Documents Forming the Audit Brief

DRAWING NUMBER

C2014-0766D-DD-0000-01 Rev 0
C2014-0766D-DD-0200-01 Rev 0
C2014-0766D-DD-0700-01 Rev 0

C2014-0766D-DD-0700-02 Rev 0

C2014-0766D-DD-1100-01 Rev 0

C2014-0766D-DD-1100-02 Rev 0
C2014-0766D-DD-1100-03 Rev 0
C2014-0766D-DD-1100-04 Rev 0
C2014-0766D-DD-1200-01 Rev 0

C2014-0766D-DD-1300-01 Rev 0

DRAWING TITLE

Drawing list
Site clearance – existing layout
Road pavements general – proposed layout sheet 1 of 2
Road pavements general – standard details sheet 1 of 2
Kerbs footways and paved areas – General Arrangement
Kerbs footways and paved areas – standard details
Kerbs footways and paved areas – standard details
Kerbs footways and paved areas – standard details
Traffic signs and road markings – proposed signs and road marking layout
Road lighting columns and brackets – proposed street lighting layout

DOCUMENTS

- Safety Audit Brief
- Site Location Plan
- Traffic signal details
- TfL signal safety checklist
- Departures from standard
- Previous Road Safety Audits
- Previous Designer Responses
- Collision data
- Collision plot
- Traffic flow / modelling data
- Pedestrian flow / modelling data
- Speed survey data
- Other documents

DETAILS (where appropriate)

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APPENDIX B

Problem Locations

