

London Road/Abbey Road Improvements – RSA Stage 1 Designer Responses

For Coventry City Council



Nov 2022

LAR-JUN-HWY-RSA1-DOC-SM-0001-Rev-01

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This document has 14 pages including the cover, plus the RSA -1 in Appendix A.

Document Status

Revision	Status	Originated	Checked	Authorized	Date
1.0	Issued for Comment	SM	SS	SS	30/11/22
2.0	Final	SM	SS	SS	30/11/22

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1.0 Introduction/Site Context

As part of the works to facilitate the improvements of access to London Road through transport improvements, a Stage 1 Road Safety Audit was carried out by the Highways and Road Safety team at Coventry City Council on the proposed signalisation of the existing London Road/Abbey Road junction. This document highlights the responses from the Design Team based upon the preliminary design referenced within the RSA Stage 1 report.

The Design Team comprises the following:

Scott Mills – Highway Lead, SJM Solutions

Martin Wilkinson – Highway Engineer, Coventry City Council, input into bus stop location

Robert Foy – Signals Manager, Coventry City Council

2.0 Responses to Audit

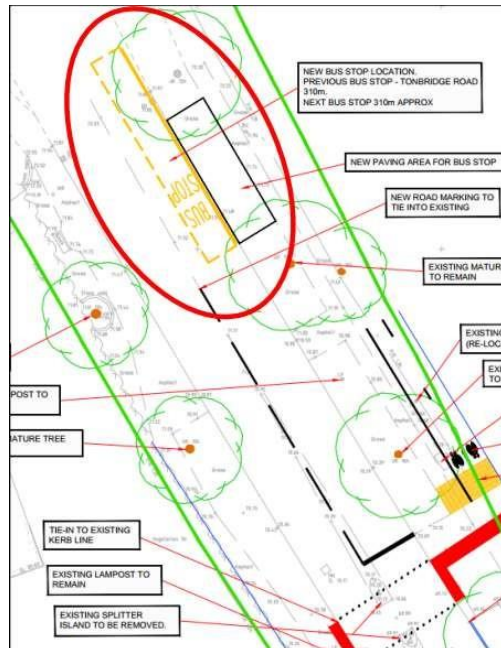
2.1 Problem

Proposed bus stop location – London Road

Summary

The bus stop relocation is on the approach to the proposed signalised junction, and in particular the signal heads. Buses waiting within the bus stop will significantly reduce the conspicuity of the signal heads (for vehicles on the approach from north-west to south-east) and this significantly increases the risk of vehicle to vehicle and vehicle to pedestrian type personal injury collisions.

Plan



Recommendation

Relocate the bus stop to a safer position. This will significantly reduce the likelihood of vehicle-to-vehicle and vehicle to pedestrian type collisions.

Recommendation Accepted Y/N

N

Designer Response

The proposed position was discussed on site between Scott Mills and Martin Wilkinson. It was felt that the location indicated provided better visibility of the bus as vehicles approached the junction. London Road is relatively straight as the screen shot below indicates. Alternative locations are possible and were discussed. If the location was moved another 30m north (towards Pinley roundabout, ASDA) then this would clash with the northbound bus stop. This would create an un-desired pinch point for vehicular traffic between the buses. Moving the bus stop much further northbound would make the travel between bus stops greater than the recommended 400m. The distance is currently approx. 330m, so moving further north would increase this to 400m.

It is also noted that the bus stop is located 27.75m from the proposed STOP LINE. At 30mph the braking distance is 23m. It has been tracked back to anticipate a vehicle overtaking the bus and it appears feasible that the signal head could be seen from 37m, as shown below.



2.2 Problem

Swept path analysis – issues with overlapping of kerbs and encroachment into adjacent lanes. Abbey Road junction and new access.

Summary

The submitted swept path drawing clearly demonstrates road safety problems related to vehicles turning from London Road into Abbey Road and the new proposed access road. As highlighted in the screen-print below, larger vehicles making the left turn manoeuvre from London Road traverse the central carriageway markings and this significantly increases the likelihood of vehicle to vehicle type personal injury collisions.

Plan



Recommendation

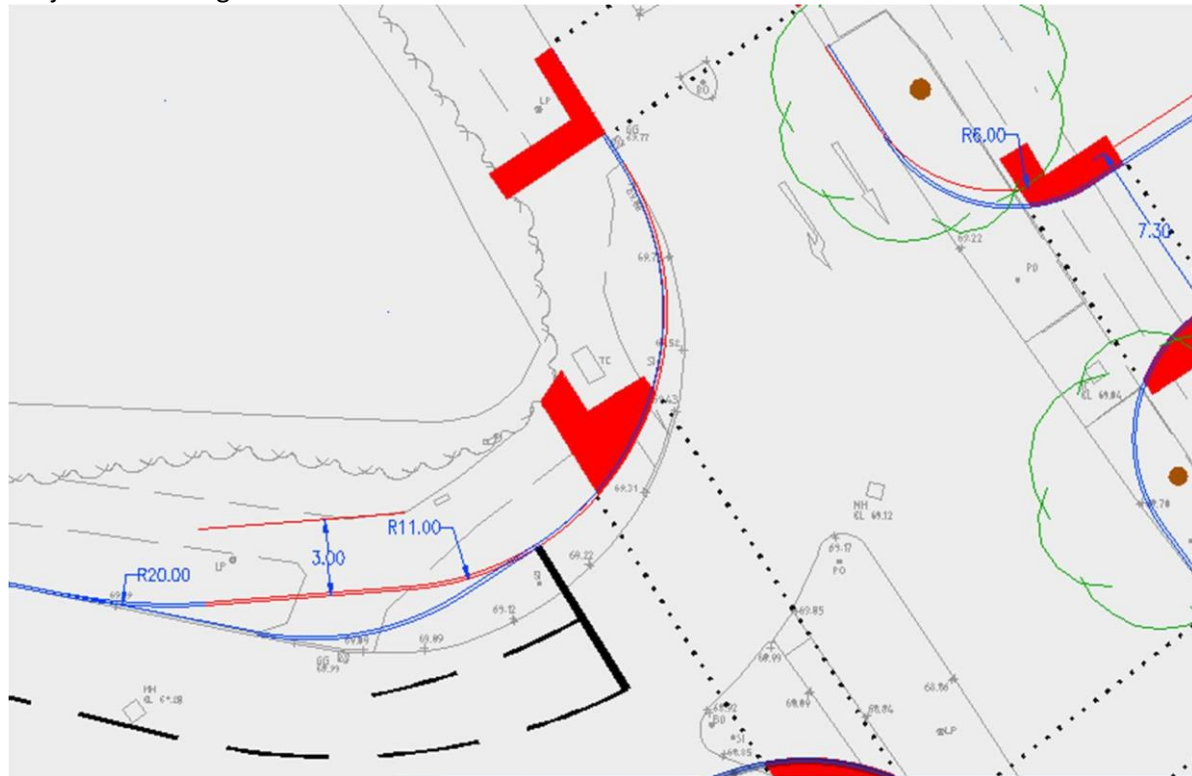
Make changes to the design so that larger vehicles can make the left-turn manoeuvre from London Road into Abbey Road and the new access road without traversing the central carriageway markings. This will significantly reduce the likelihood of vehicle to vehicle collisions

Recommendation Accepted Y/N

Y

Designer Response

This comment is being addressed as part of the continuing design. Comments can be incorporated by increasing roads widths and adjusting kerb lines generally as indicated below, subject to tracking revision.



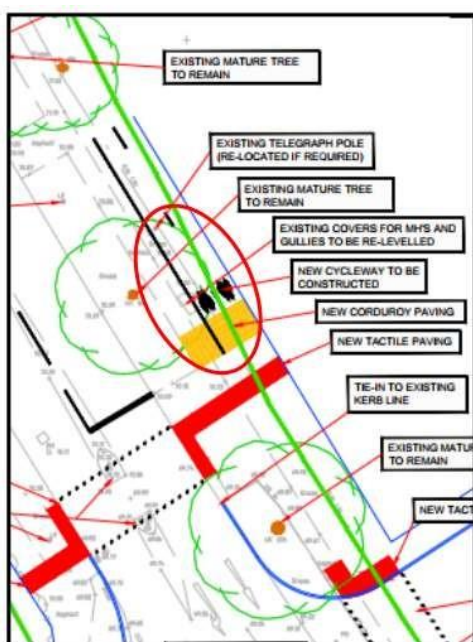
2.4 Problem

Various cycleway facilities – through scheme

Summary

The proposed cycleway on the north-eastern side of London Road is unorthodox as the cyclists will be situated on the inside and pedestrians in the middle adjacent to the road. Cycleways are normally installed adjacent to the highway as they travel faster than pedestrians, and its good practice to keep pedestrians away from higher modes of transport. In addition, cyclists adjacent to the highway are not close to the verge/ trees or street furniture. Installing a cycleway at the back of the footway and pedestrians in the middle of the footway significantly increases the likelihood of cycle to pedestrian type personal injury collisions. The relocation of the footway adjacent to the carriageway also results in pinch points for wheelchair and mobility scooter users due to existing trees, which may result in them having to use the cycle track, which will increase the likelihood of cycle to pedestrian type personal injury collisions.

Plan



Recommendation

1. Re-examine the cycleway design on the north-eastern side of the scheme
2. Ensure the proposed cycleway infrastructure is connected to the existing

The two recommendations will significantly reduce the likelihood of vehicle to vehicle type personal injury collisions

Recommendation Accepted Y/N

Y

Designer Response

This comment is being addressed as part of the continuing design. The north-eastern cycleway will be switched with the footway so it is closer to the main highway.

The remaining cycleway network comprises a segregated network linking towards Toll Bar End. There is also a cycleway linkage up Abbey Road and Ashington Road (including a crossing). There are currently no cycleway links on the northern footway of London Road, so this will need to be improved if possible.

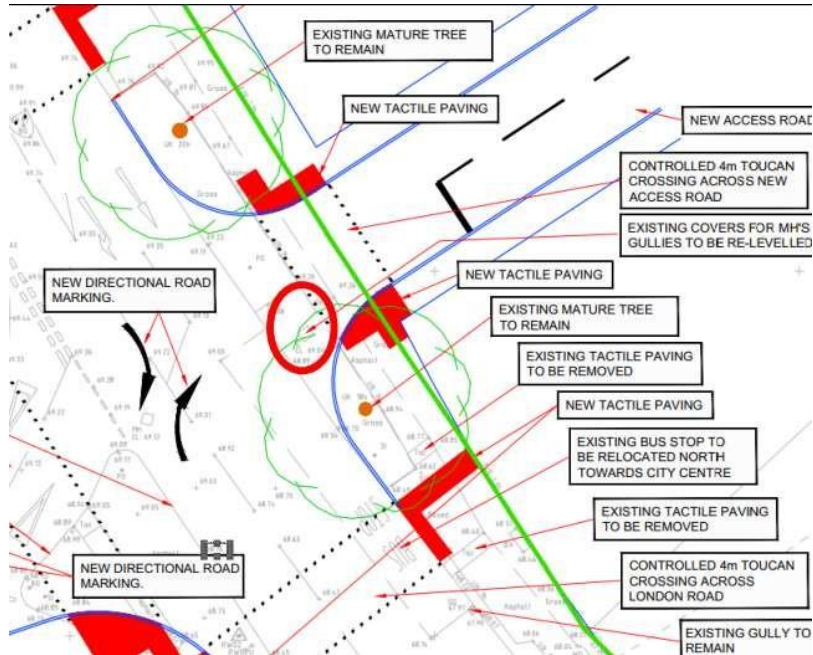
2.5 Service Covers

Service covers on London Road

Summary

The existing covers are to be re-levelled but will remain in situ. This location is where a high proportion of vehicles will be turning out of the new access into London Road. Having service covers at on a corner increases the risk of vehicles skidding and also increases the likelihood of the service cover failing and becoming a maintenance issue. This increases the likelihood of vehicle to vehicle type personal injury collisions

Plan



Recommendation

Relocate the service covers so that it does not cause any road safety hazards.

Recommendation Accepted Y/N

Y

Designer Response

The designer will co-ordinate with the design and the statutory undertakers to determine the extent of works.

Appendix A - RSA 1

STAGE 1 & 2 ROAD SAFETY AUDIT
LONDON ROAD SIGNALISED JUNCTION

1. INTRODUCTION

- 1.1** This report describes a Stage 1 & 2 Road Safety Audit carried out on London Road, at the junction with Abbey Road, Coventry. The scheme drawings were produced and submitted by Coventry City Council, Transport and Infrastructure Design Team.
- 1.2** The audit team members were Joel Logue (Highways, Traffic and Road Safety Engineer) and Caron Archer (Principal Officer – Traffic Management).
- 1.3** The audit comprised an examination of drawings relating to the scheme (listed in Appendix B) and a daytime site visit between 11:45 and 12:45 on 6th October 2022. The weather was dry and bright. Traffic flows were medium to high as expected for this type of road, and pedestrian movements were low during the site visit.
- 1.4** The terms of reference of the audit are as described in GG119. The scheme has been examined and this report compiled only with regard to the safety implications for road users of the scheme as presented. It has not been examined or verified for compliance with any other Standards or criteria. However, in order to explain clearly a safety problem or the recommendation to resolve a problem, the Audit Team may have referred to a design standard for information only. Any audit comments should not be construed to imply that a technical audit has been undertaken.
- 1.5** All of the problems described in this report are considered by the audit team to require action in order to improve the safety of the scheme and minimise collision occurrence. Any recommendations included within this report should not be regarded as being prescriptive design solutions to the problems raised. They are intended only to indicate a proportionate and viable means of eliminating or mitigating the identified problem in accordance with GG119 and in no way imply that a formal design process has been undertaken. There may be alternative methods of addressing a problem which would be equally acceptable in achieving the desired elimination or mitigation and these should be considered when responding to this report.
- 1.6** It is assumed that the scheme designer has advised of any departures from standard when the audit was requested. None were specified.
- 1.7** The scheme is detailed in the drawings listed in Appendix B and comprises a signalised junction upgrade, and a new access onto London Road, including the relocation of a bus stop.
- 1.8** No details regarding signal phases, locations of traffic signals or highway materials were submitted to the Audit Team.
- 1.9 EXISTING PERSONAL INJURY COLLISION SITUATION**
The recorded personal injury collision history of the highway affected by the scheme has shown that there were 2 reported personal injury collisions in the last three years (21/10/19 – 20/08/22).

2. ITEMS RESULTING FROM THIS STAGE 1 & 2 ROAD SAFETY AUDIT LONDON ROAD SIGNALISED JUNCTION

2.1 Problem: Bus stop Location

Location: London Road - see screen-print



Summary

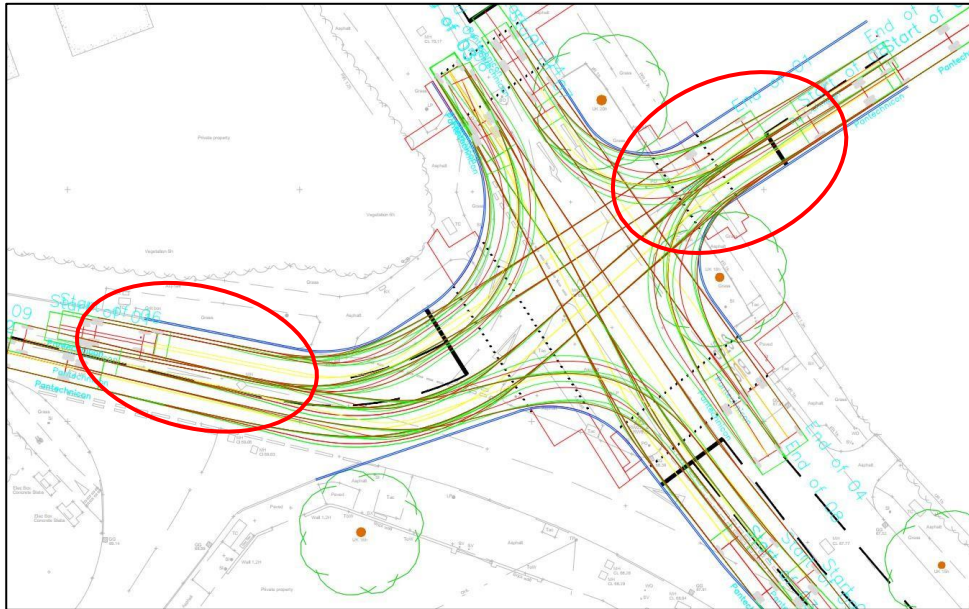
The bus stop relocation is on the approach to the proposed signalised junction, and in particular the signal heads. Buses waiting within the bus stop will significantly reduce the conspicuity of the signal heads (for vehicles on the approach from north-west to south-east) and this significantly increases the risk of vehicle to vehicle and vehicle to pedestrian type personal injury collisions.

RECOMMENDATION

Relocate the bus stop to a safer position. This will significantly reduce the likelihood of vehicle-to-vehicle and vehicle to pedestrian type collisions.

2.2 Problem: Swept Path analysis

Location – Abbey Road and new access



Summary

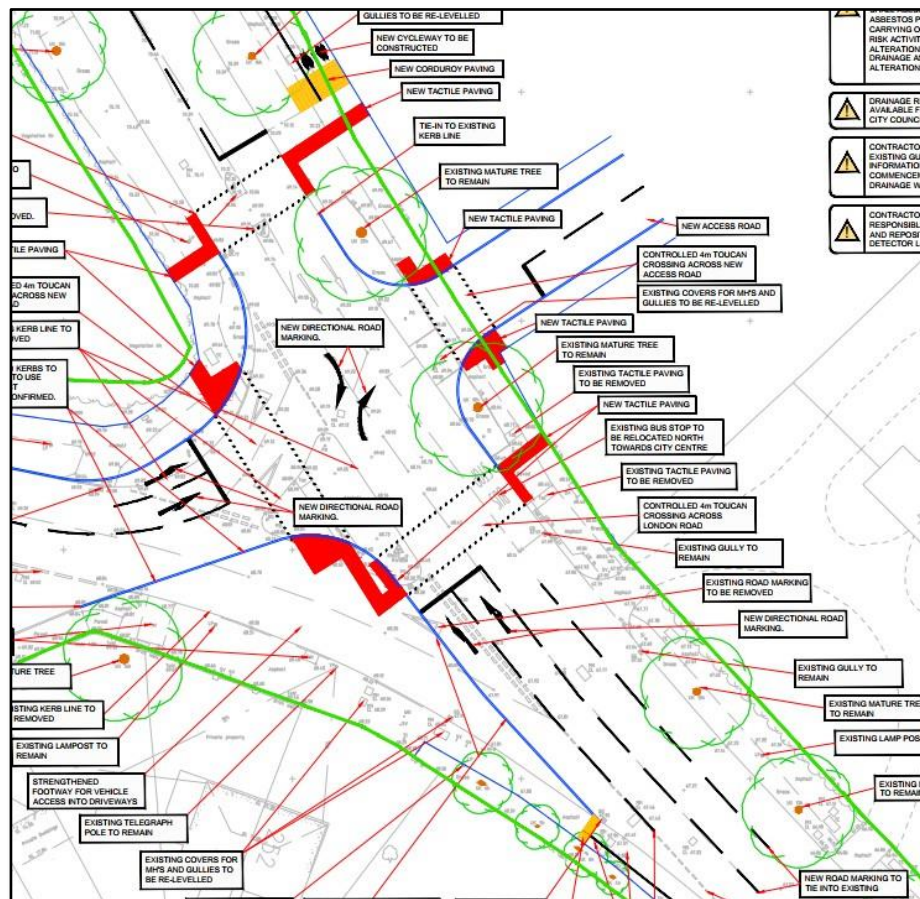
The submitted swept path drawing clearly demonstrates road safety problems related to vehicles turning from London Road into Abbey Road and the new proposed access road. As highlighted in the screen-print above, larger vehicles making the left turn manoeuvre from London Road traverse the central carriageway markings and this significantly increases the likelihood of vehicle to vehicle personal injury collisions.

RECOMMENDATION

Make changes to the design so that larger vehicles can make the left-turn manoeuvre from London Road into Abbey Road and the new access road without traversing the central carriageway markings. This will significantly reduce the likelihood of vehicle to vehicle collisions.

Problem: General carriageway markings

Location – London Road - throughout scheme



Summary

The proposed highway lining and signage is inadequate and this compromises safety throughout the scheme. The drawing highlights incorrect carriageway markings such as diag 1004 whereby they should be to diag 1005; this may result in driver confusion. In addition, there are no proposed advanced direction arrows on any of the approaches, and subsequently this may result in late driver decision making and this may result in personal injury collisions related to side-swipes.

The approach to Abbey Road (drivers travelling from south-east to north-west) is confusing for drivers as there is no guidance. The lack of lining, such as bifurcation markings, significantly increases the likelihood of vehicle-to-vehicle personal injury collisions.

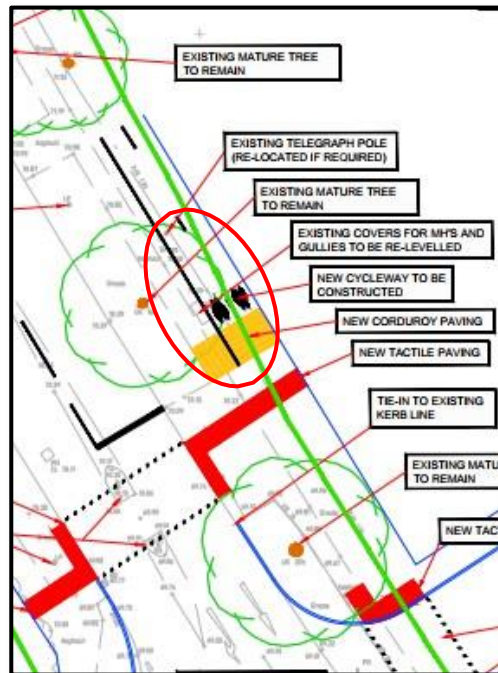
RECOMMENDATION

1. Evaluate the proposed lining and signing to ensure it is adequate and satisfies the requirements set out in TSRGD.
2. Install "wicket" signs to compliment the carriageway markings

The two recommendations will significantly reduce the likelihood of vehicle to vehicle type personal injury collisions.

2.4 Problem: Various cycleway facilities

Location – throughout



Summary

The proposed cycleway on the north-eastern side of London Road is unorthodox as the cyclists will be situated on the inside and pedestrians in the middle adjacent to the road. Cycleways are normally installed adjacent to the highway as they travel faster than pedestrians, and its good practice to keep pedestrians away from higher modes of transport. In addition, cyclists adjacent to the highway are not close to the verge/ trees or street furniture. Installing a cycleway at the back of the footway and pedestrians in the middle of the footway significantly increases the likelihood of cycle to pedestrian type personal injury collisions. The relocation of the footway adjacent to the carriageway also results in pinch points for wheelchair and mobility scooter users due to existing trees, which may result in them having to use the cycle track, which will increase the likelihood of cycle to pedestrian type personal injury collisions

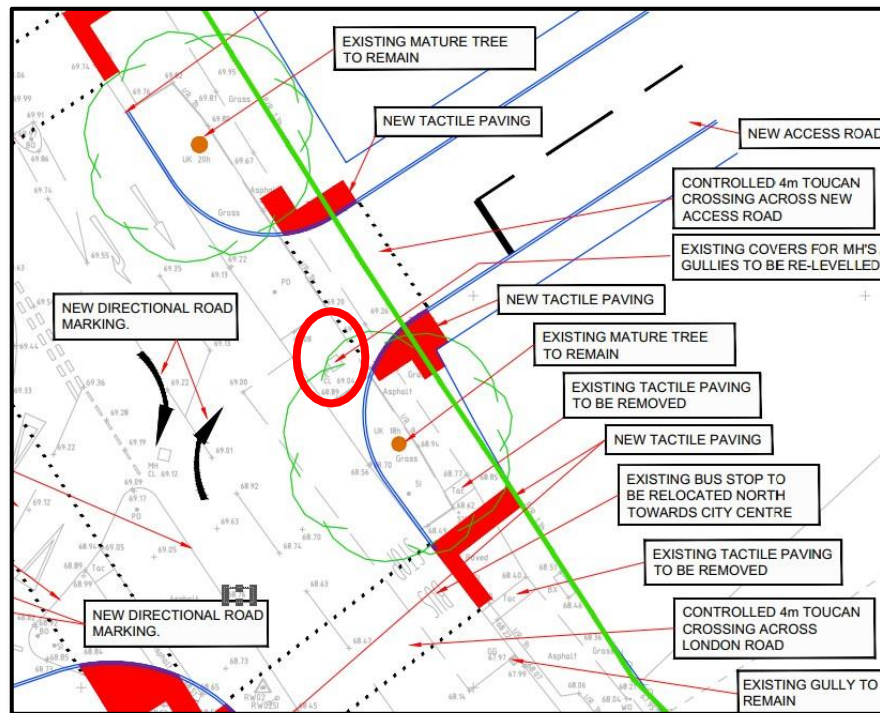
RECOMMENDATION

1. *Re-examine the cycleway design on the north-eastern side of the scheme*
2. *Ensure the proposed cycleway infrastructure is connected to the existing*

The two recommendations will significantly reduce the likelihood of vehicle to vehicle type personal injury collisions.

2.5 Problem: Service covers

Location – London Road junction with new access



Summary

The existing covers are to be re-levelled but will remain in situ. This location is where a high proportion of vehicles will be turning out of the new access into London Road. Having service covers at on a corner increases the risk of vehicles skidding and also increases the likelihood of the service cover failing and becoming a maintenance issue. This increases the likelihood of vehicle to vehicle type personal injury collisions.

RECOMMENDATION

Relocate the service covers so that it does not cause any road safety hazards.

3 AUDIT TEAM STATEMENT

We certify that this audit has been carried out in accordance with GG 119.

AUDIT TEAM LEADER

Joel Logue

Signed: 

Date: 18 October 2022

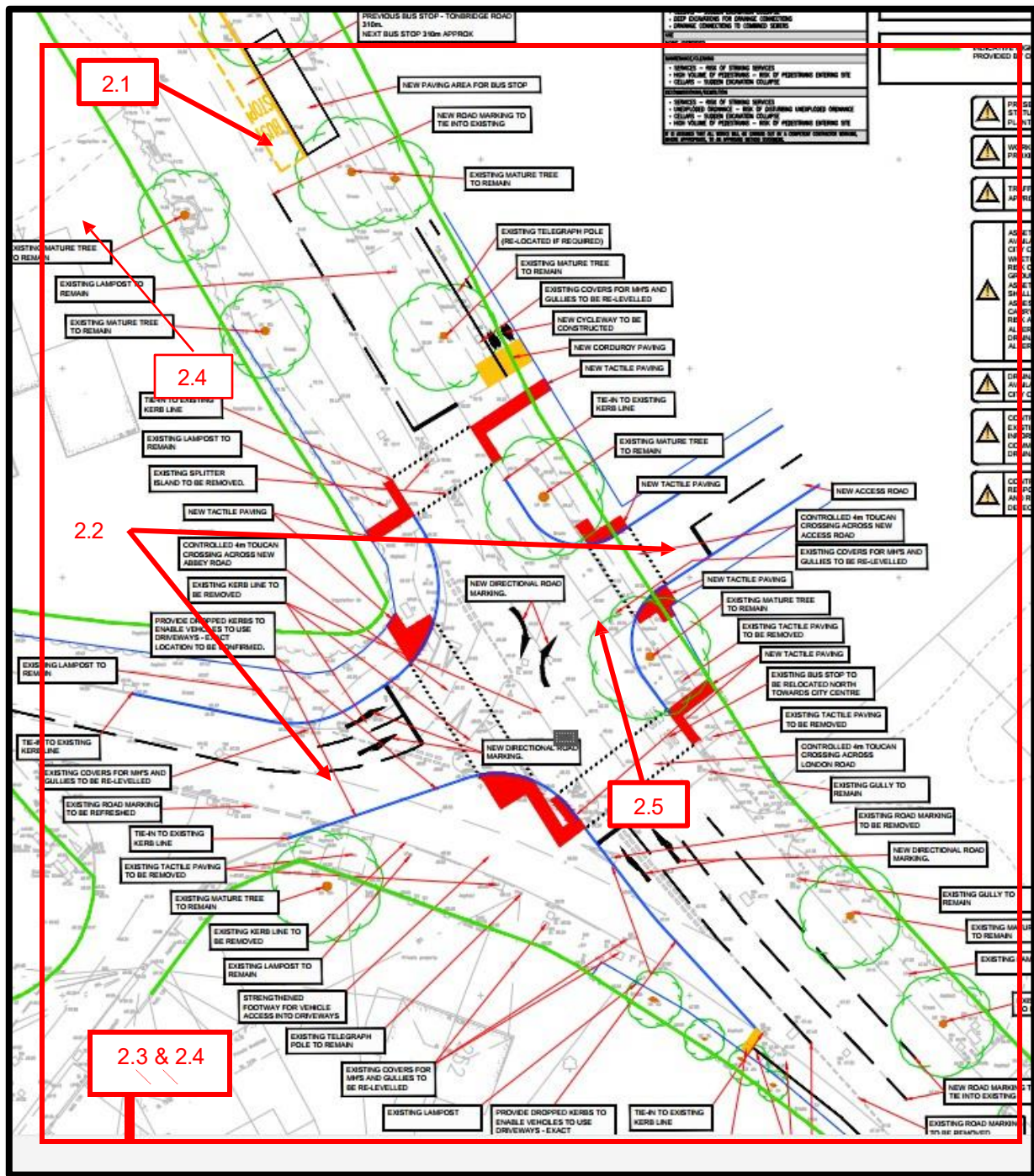
AUDIT TEAM MEMBER

Caron Archer

Signed: 

Date: 18 October 2022

APPENDIX A - PROBLEM LOCATION PLANS



APPENDIX B

LIST OF DRAWINGS AND DOCUMENTS PROVIDED TO THE AUDIT TEAM

	Swept Path Pantechicon - Abbey Rd London Rd Junction-A1 Frame Landscape.pdf 467 KB	▼
	CS-HWY-ARLR-1000-01 Rev 0 Location Plan.pdf 349 KB	▼
	CS-HWY-ARLR-100-01 Rev 0 GA Abbey Road London Road Junction.pdf 632 KB	▼
	Swept Path Large Refuse Vehicle - Abbey Rd London Rd Junction-A1 Frame Landscape.pdf 491 KB	▼