



safer roads for everyone

North – South Cycle Superhighway, London

Road Safety Audit Stage 3

on behalf of City of London

TMS reference no: 12809

North – South Cycle Superhighway, London

Road Safety Audit Stage 3

1. Introduction

1.1 This report describes a Stage 3 Road Safety Audit carried out on a section of the Cycle Superhighway (CSH6), London that runs north – south along the A201 between A201 Farringdon Street junction with Bear Alley at the northern end and the south side of Blackfriars Bridge at the southern end (junction with Upper Ground), on behalf of City of London.

1.2 The audit team members were as follows:-

Darren Newbold – MSc, BSc (Hons), MCIHT, MSoRSA
HE Approved RSA Certificate of Competency
Senior Engineer, TMS Consultancy

Paul Martin - BSc (Hons), CEng, MCIHT, AMICE, FSoRSA
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Managing Director, TMS Consultancy

1.3 The audit comprised a daylight examination of the site by the Audit Team on 25th May 2016 between 5pm and 7pm. The weather was fine and dry. Traffic flows were heavy. Pedestrian and cycle flows were heavy.

Also present during the daylight examination was:

- Alan Rickwood – City of London Police

An additional daylight examination of the site by the Audit Team was carried out on 26th May 2016 between 8am and 8.45am on New Bridge Street between the junctions of Bridewell Place and Tudor Street.

The Audit Team visited the site during darkness on 25th May 2016 at 9.30pm. The weather was fine and dry. Traffic, pedestrian and cycle flows were moderate.

1.4 The terms of reference of the audit are as described in HD 19/15. The team has examined and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the design to any other criteria.



- 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 accident occurrence. The locations of specific problems are referenced on the plan in **Appendix A**.

- 1.6 The scheme consists of a section of the Cycle Superhighway (CSH6), London that runs north – south along the A201 between A201 Farringdon Street junction with Bear Alley at the northern end and the south side of Blackfriars Bridge at the southern end (junction with Upper Ground).

2. Items resulting from this Stage 3 Audit

The Problems in this report are generally presented from south to north along the route and are listed as per the General Arrangement Drawings for the scheme. The North – South Cycle Super Highway will be referred to as CSH 6 throughout the remainder of this report.

General Arrangement Sheet 16

No specific road safety problems identified with this element of the scheme.

General Arrangement Sheet 17

No specific road safety problems identified with this element of the scheme.

General Arrangement Sheet 18

2.1 PROBLEM

Location – A201 Blackfriars Bridge; pedestrian crossing at CSH 6

Summary: Potential cycle to pedestrian collisions

It was noted at the site visit that whilst a large percentage of cyclists are compliant with the CSH signals, a small number or continuing to travel through the red signal. This was particularly noticeable at the controlled pedestrian crossing that crosses CSH 6 on the northern side of Blackfriars Bridge. Pedestrians using the crossing will be at risk of being struck by cycles if cyclists continue to proceed through a red signal.

RECOMMENDATION

It is acknowledged that the scheme is new and a high proportion of cyclists are compliant with the signals. However, enhanced signage should be provided or greater enforcement should target red light running of cyclists.

2.2 PROBLEM

Location – East – West CSH junction with CSH 6

Summary: Potential hazard and obstruction to pedestrians

There is a pole located within the footway that does not feature a sign. It is unclear if the pole is redundant or new and awaiting installation of a sign face. However, the pole is within the middle of the footway and as such is a hazard and obstruction to pedestrians, particularly to those with visual or mobility impairments.



RECOMMENDATION

The pole should be removed if redundant. If still required for a new sign, the pole should be relocated to the rear of the footway.

2.3 PROBLEM

Location – Victoria Embankment off slip junction with A201

Summary: Potential vehicle to pedestrian collisions

The Victoria Embankment on / off slip road is two-way. The Audit Team has been informed that this was previously only one-way, which is why there is a need for temporary 'Pedestrians Look Both Ways' signs at the controlled crossing at the top of the slip road at the junction with the A201. These temporary signs may in time get stolen, fall over or become displaced. Some pedestrians when using the crossing may be expecting traffic in one direction only, which may result in pedestrians stepping out into the carriageway in front of oncoming traffic.

RECOMMENDATION

Permanent 'Look Both Ways' carriageway markings should be provided on both sides of the crossing.

2.4 PROBLEM

Location – South bound cycle lane from Queen Victoria Street onto A201 (outside Blackfriars Station)

Summary: Potential collisions between all road users

There is a long length of mandatory cycle lane on the east side of the A201 from Queen Victoria Street outside Blackfriars Station prior to the cycle switch over to CSH 6. However, there are no cycle symbol markings in this lane. The lack of markings may lead to the cycle lane being misused by other vehicles, leading to vehicle/cycle collisions.

RECOMMENDATION

Cycle symbol markings should be provided in the cycle lane at regular intervals (as per General Arrangement Drawing 18).

2.5 PROBLEM

Location – A201 cycle switch from A201 southbound to East – West CSH and CSH 6

Summary: Potential cycle collisions with pedestrians and vehicles

Although it appeared to be well used and understood at the time of the site visit, the switch to take cyclists from the cycle lane on the southbound A201 across to the East – West CSH and CSH 6 is a critical section of the route. Temporary signs are in place at present, however these signs may in time get stolen, fall over or become displaced. New cyclists may not comprehend the layout, with confusion leading to collisions with other road users.

RECOMMENDATION

Permanent signs should be provided for guidance to cyclists.

2.6 PROBLEM

Location – New Bridge Street pedestrian crossing

Summary: Potential hazard to visually impaired pedestrians

It was noted at the time of the site visit that neither of the push button demand units, and associated rotating cones, on the east side of the pedestrian crossing on New Bridge Street were working. Visually impaired pedestrians may be vulnerable when attempting to cross at this location as they have no control or tactile aid to help them use the crossing. Vehicle/pedestrian collisions may result if pedestrians attempt to cross during traffic phases.

RECOMMENDATION

The push button demand units and rotating cones should be checked and repaired as necessary.

General Arrangement Sheet 19

2.7 PROBLEM

Location – New Bridge Street junction with Tudor Street

Summary: Potential vehicle collisions with cycles

The layout of the junction of New Bridge Street with Tudor Street is in a temporary state. The General Arrangement shows that Tudor Street is to be closed off to vehicular traffic, however, in its temporary state vehicles can egress from Tudor Street and make a left turn manoeuvre onto New Bridge Street. Although only observed on a small number of occasions (both am and pm peak periods), drivers wait at the give way, check for cyclists before crossing CSH 6 and wait for a gap to complete their manoeuvre. These have been carried out without conflict with cyclists and the vehicles involved have either been private cars, taxis or light goods vehicles. However, in the event that a large vehicle was to carry out this manoeuvre, they could end up blocking the CSH 6 for a longer period of time, increasing the likelihood of collisions with cyclists.

RECOMMENDATION

The feasibility of closing off Tudor Street at its junction with New Bridge Street should be assessed, assuming that vehicles have alternative routes to exit from the Temple Area.

Alternatively, if the left out manoeuvre is to remain permitted for vehicles, all of the existing temporary signage at the junction should be replaced with permanent signage, and transverse give way markings installed at the entry into the general traffic lane, similar to the Bride lane junction with New Bridge Street.

2.8 PROBLEM

Location – New Bridge Street junction with Tudor Street

Summary: Potential vehicle collisions with cycles in hours of darkness

During the site visit in darkness, it was noted that the general area of New Bridge Street junction with Tudor Street was quiet dark, due to a number of lighting columns not being illuminated, most noticeably the floodlight column in the median strip between CSH6 and the main carriageway, just to the south of Tudor Street. Poor illumination of the junction in darkness may exacerbate the risk of collisions as described in Problem 2.7.

RECOMMENDATION

Localised lighting should be checked and lighting units repaired as necessary.

2.9 PROBLEM

Location – A201 New Bridge Street junction with Bridewell Place

Summary: Potential collisions between all road users

There are a number of prohibited movements at the A201 new Bridge Street junction with Bridewell Place all currently signed with temporary signs. However these signs may in time get stolen, fall over or become displaced leaving drivers / cyclists unaware of the restrictions. Collisions may occur between all road users if drivers / riders fail to appreciate the prohibited movements.

RECOMMENDATION

The temporary signs should be replaced with permanent signs.

General Arrangement Sheet 20

2.10 PROBLEM

Location – Bride Lane junction with A201 New Bridge Street

Summary: Potential vehicle to cycle collisions

On exit from Bride Lane, temporary signs have been placed on the footway (red cycle warning symbol with uni-directional arrows) to show warn drivers that they are going to egress across CSH6. These signs are not consistent with the 'Cycle Lanes Look Both Ways' signs used at other locations throughout the scheme (i.e. Tudor Street). The red cycle warning sign is not as clear to drivers that they have to cross a cycle lane. Misleading information may lead to vehicles pulling out of Bride Lane into the path of cyclists on the CSH6.

RECOMMENDATION

The temporary signs should be replaced with permanent 'Cycle Lanes Look Both Ways' signs to be consistent with the rest of the route.

2.11 PROBLEM

Location – A201 New Bridge Street / Fleet Street / Ludgate Hill

Summary: Potential vehicle collisions

Northbound drivers on the A201 New Bridge Street approach to the junction with Fleet Street / Ludgate Hill, drivers and cyclists are informed that there is a right turn prohibition into Ludgate Hill 'except in two stages'. The Audit Team has been informed that there is a bus route that requires right turn manoeuvres from A201 New Bridge Street into Ludgate Hill. Vehicle collisions may occur if other drivers are not expecting buses to make right turn manoeuvres.

RECOMMENDATION

The requirement for buses to make the right turn from A201 New Bridge Street into Ludgate Hill should be clarified and if necessary 'except buses' should be added to the traffic signals.

2.12 PROBLEM

Location – A201 New Bridge Street / Fleet Street / Ludgate Hill

Summary: Potential vehicle collisions with cycles in hours of darkness

During the site visit in darkness, it was noted that the general area of the A201 New Bridge Street / Fleet Street / Ludgate Hill junction was quite dark, due to a number of lighting columns not being illuminated. Poor illumination of the junction may result in darkness related vehicle collisions.

RECOMMENDATION

Localised lighting should be checked and lighting units repaired as necessary.

General Arrangement Sheet 21

2.13 PROBLEM

Location – Farringdon Street / Bear Alley

Summary: Potential vehicle to cycle collisions

On the east side of Farringdon Street adjacent to Bear Alley, the southbound cycle track diverges away from the main carriageway. This is to enable cyclists to make the switch from the southbound cycle track across to CSH6. This area has not been constructed as per general Arrangement Sheet 21. The open nature of this area may be 'inviting' for drivers to enter / park, which may result in vehicle/cycle collisions.

RECOMMENDATION

This area should be formalised with appropriate signage (it is noted that there is a sign pole present without a sign face), carriageway 'cycle symbols', and different coloured surfacing to highlight the area as being for cyclists only.

General Locations

2.14 PROBLEM

Location – CSH6 Route

Summary: Potential collisions between all road users

As well as in the specific locations identified in Problems 2.3, 2.5 and 2.9, the signage in general along the route is all temporary. However these signs may in time get stolen, fall over or become displaced, leaving drivers / cyclists unaware of restrictions, turning prohibitions, cycle tracks etc. Poor comprehension of the road layout may result in collisions between all road users.

RECOMMENDATION

The temporary signage should be replaced with permanent signs.

2.15 PROBLEM

Location – CSH6 Route

Summary: Potential slip / skid hazard to cyclists

It was noted that whilst unavoidable, there was a large number of metal service covers located within the CSH 6 route. Metal service covers can become polished in time and therefore a potential slip / skid hazard to cycles, particularly in wet or icy conditions. This issue may be exacerbated as cyclists travel at speed along the route. Given the high usage of the route, in the event that a rider becomes de-stabilised and falls from their cycle, there is a risk of being struck by other cyclists on the route.

RECOMMENDATION

The feasibility of treating all the metal service covers along the CSH 6 route with a non-slip surface should be investigated.

3.16 PROBLEM

Location – CSH 6 Route

Summary: Potential darkness related collisions between all road users

As well as the specific locations identified in Problems 3.8 and 3.12, it was noted there were a number of intermittent lighting columns not illuminated during the site visit in darkness, particularly on the section north of Blackfriars Bridge. Poor illumination may result in darkness related collisions between all road users.

RECOMMENDATION

Localised lighting should be checked and lighting units repaired as necessary.

3.17 OTHER ISSUE

A 'buses only' right turn lane pocket is provided to enable buses to make U-turns from A201 southbound to northbound at the north side of Blackfriars Bridge. However, 'buses only' is marked on the carriageway and the upright signs states 'buses and taxis'. This should be clarified and a consistent signage or road marking provided.



3. Audit Team Statement

We certify that the terms of reference of the audit are as described in HD 19/15.

Audit Team Leader

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HE Approved RSA Certificate of Competency
Senior Engineer, TMS Consultancy

Signed 

Date 31st May 2016

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Managing Director, TMS Consultancy

Signed 

Date 31st May 2016

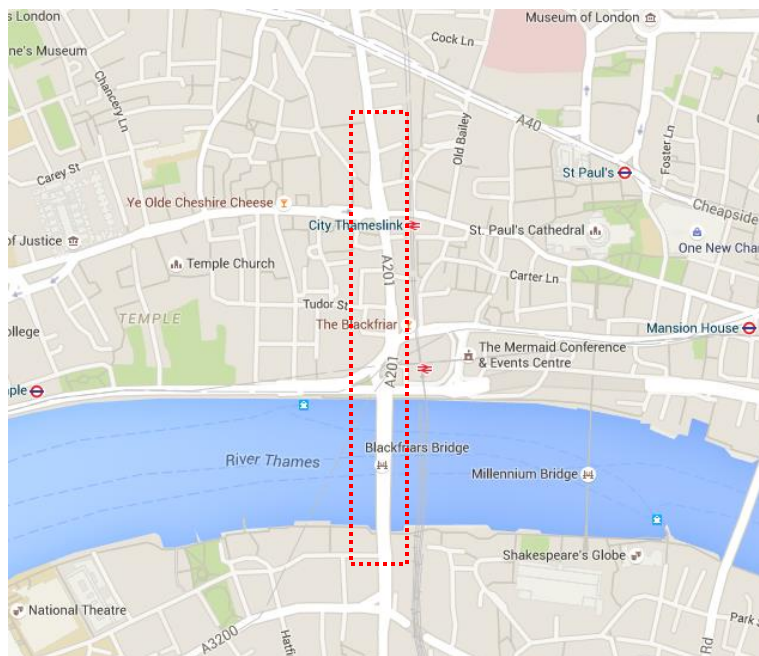
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Appendix A

Please refer to the following page for a plan illustrating the locations of the problems identified as part of this audit (location numbers refer to paragraph numbers in the report).

The location of the scheme is shown below

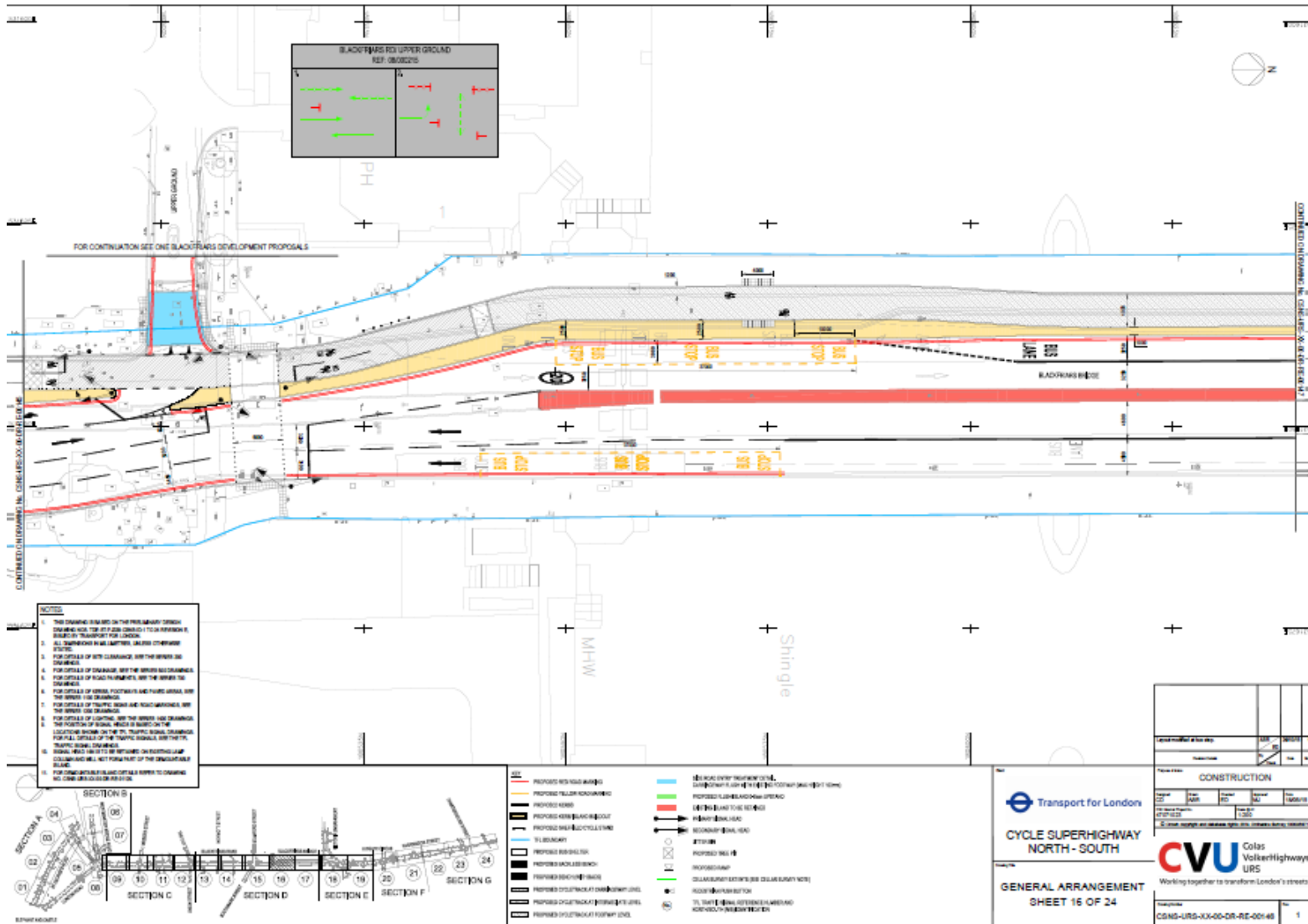


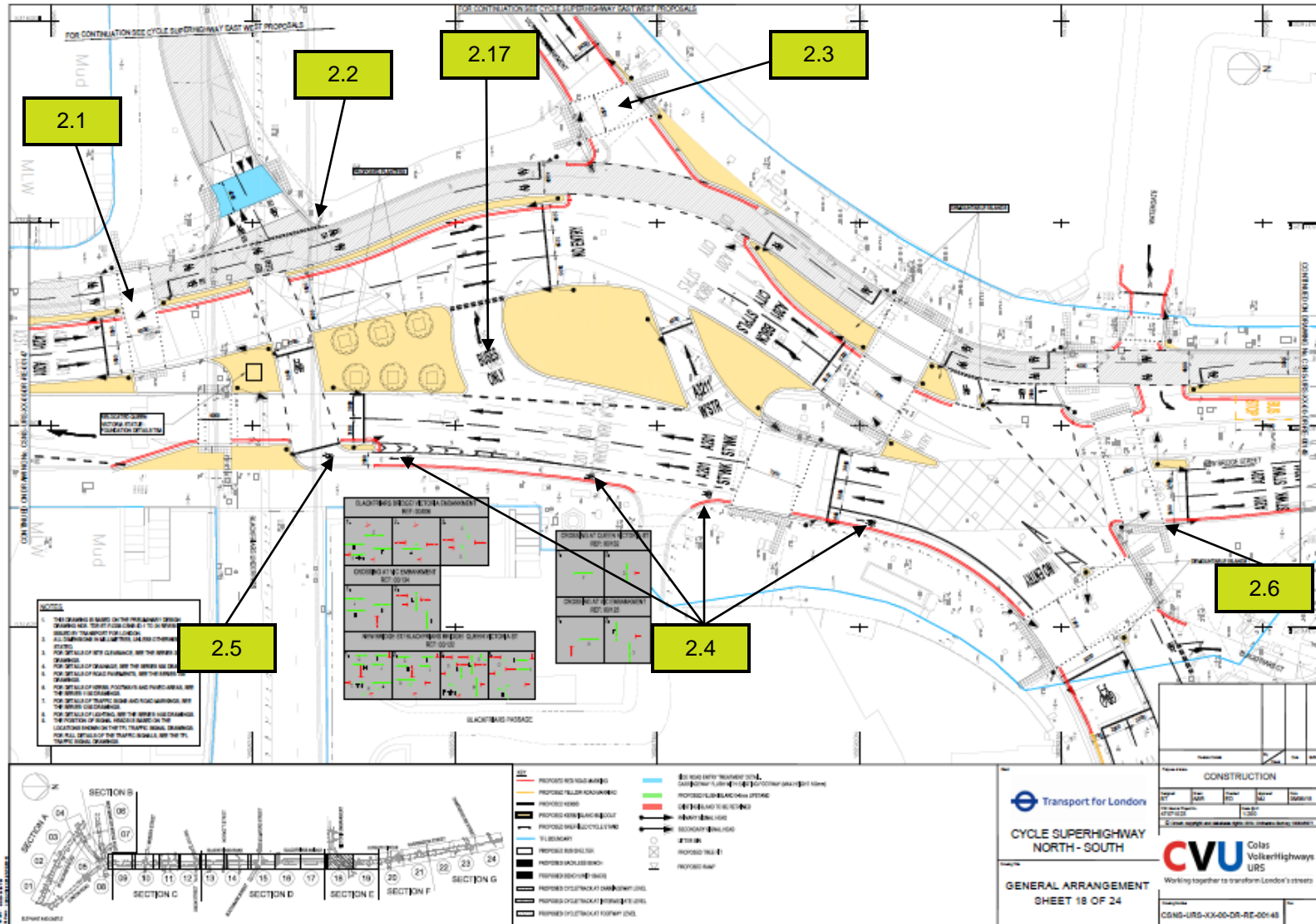


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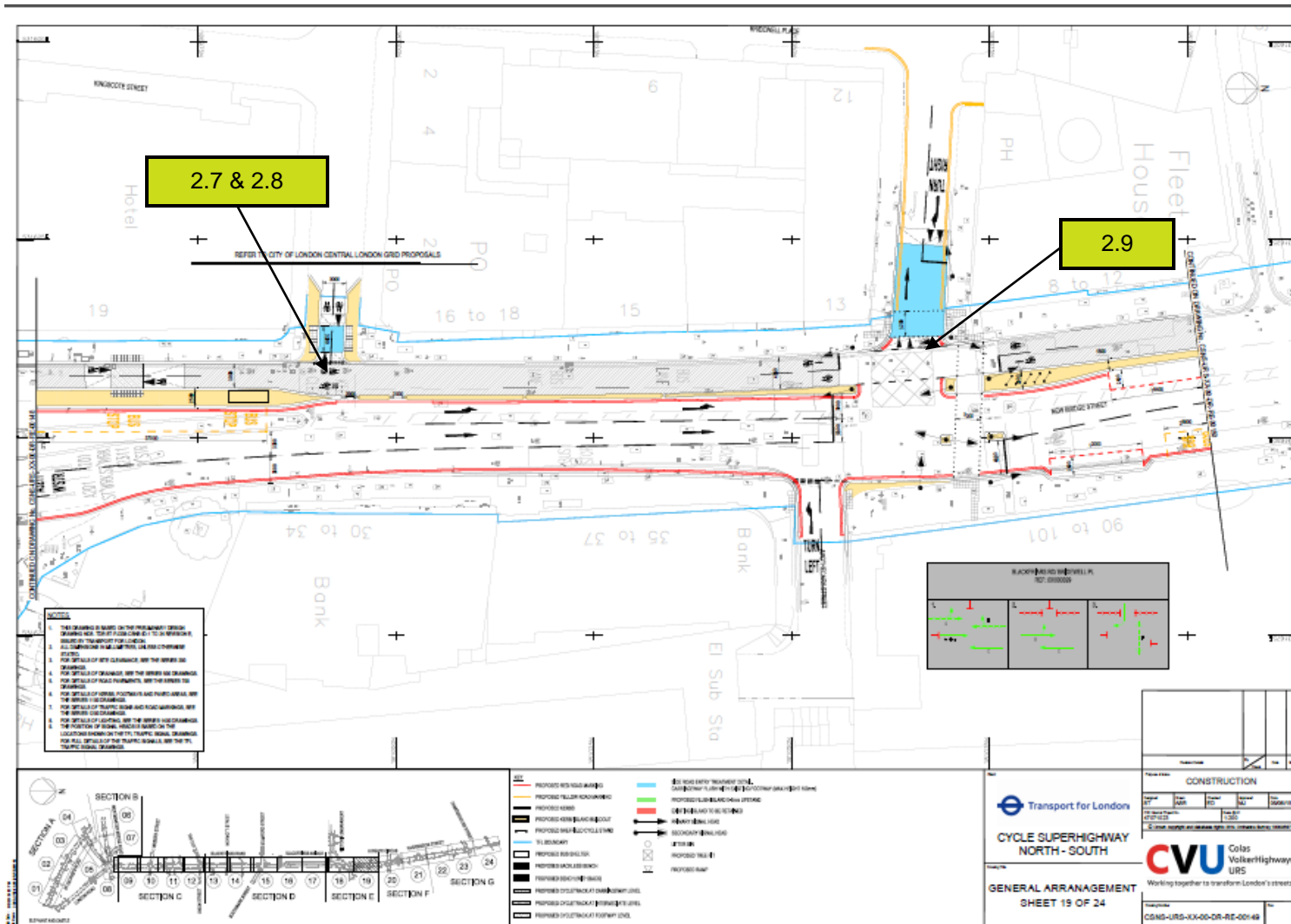
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