A3 Elephant and Castle Southern Roundabout Safer Junctions programme

Brief

August 2018

A3 Elephant and Castle Southern Roundabout

Brief

Contents

1. Background

Strategic context

Transport for London, as the highway authority, has responsibility for maintaining, operating and improving the Transport for London Road Network in London. This network comprises around five per cent of all roads in London, but carries over one third of all traffic.

The transport network plays a vital role in supporting economic growth, by linking people to jobs, delivering products to markets and supporting domestic and international trade. Transport also promotes social cohesion, by providing access to key services, such as health and education services, shops and leisure facilities.

The Mayor's Transport Strategy sets out a clear commitment to the Vision Zero approach to eliminating road deaths and serious injuries on London's roads. Vision Zero includes a number of programmes designed to tackle road danger reduction, including Safer Junctions.

Safety improvements at specific junctions will be critical to achieving the Mayor's Vision Zero ambition in reducing road danger and following the analysis of the road casualty data, the Safer Junctions list was published in April 2017 and identified 73 junctions on the TLRN with the highest Vulnerable Road User (VRU) collision rate. The list includes:

- 21 junctions which have been upgraded in the last three years,
- 33 at which TfL were already investigating improvements, and
- 19 where investigations would begin.

Over the period 2013 – 2015, 1819 KSIs (all modes) were recorded at all junctions in London. This data was used to identify the sites to be prioritised for study. 46 KSIs were recorded at the 19 new locations which are being investigated as part of the Safer Junctions programme.

It should be noted that the junctions in the Safer Junction programme are also major locations of social interaction and in many cases perform an important 'place' function. Hence design proposals should seek to make these locations more appealing to pedestrians and cyclists, with the aim of reducing road danger throughout the Safer Junction scheme area. This holistic approach will not only drive down collisions, but improve the urban realm, encourage modal shift to walking and cycling, and contribute to wider regeneration objectives.

Examples of interventions that should be considered for all Safer Junctions include:

- New and/or improved pedestrian crossings
- Innovative facilities to separate cyclists from traffic in time and space, and improve existing cycle facilities where they exist
- Wider pedestrian footways, and decluttering of existing footways
- 'Floating' bus stops
- Opportunities to introduce Sustainable Urban Drainage

- Opportunities to introduce pocket parks, improved hard and soft landscaping, and new cycle parking
- A review of street lighting throughout the scheme area, to identify any sub-standard locations
- Measures to reduce traffic speeds (including consideration of 20mph), and ensure those speed reductions are self-enforcing (e.g. through raised pedestrian crossings)
- Measures to bring about traffic reduction through the junction (e.g. traffic lane removal, where practicable and without significant adverse impacts on buses; making roads accessible to pedestrians, cyclists and buses only)
- Opportunities for increased bus priority

In June 2018, the TfL Healthy Streets Portfolio Board approved the Safer Junctions programme budget of £0.5m in 2018/19 to continue work on the 19 junctions where collision investigations began in 2017/18.

Local context

A3 Elephant and Castle Southern Roundabout within the London Borough of Southwark is situated along the A3 corridor. The A3 is a strategic arterial corridor that runs from London Bridge in central London through Elephant and Castle towards the south west of London. Within LB Southwark, the A3 is generally a single carriageway bi-directional road with two lanes of traffic and stretches of bus lanes where carriageway widths allow. Cycle Superhighway 7 (CS7) also runs along part of the A3 in LB Southwark, from Elephant and Castle westwards to the borough boundary with LB Lambeth.

The A3 Elephant and Castle Southern Roundabout has a mixture of land use which is dominated by the Elephant and Castle shopping centre on the north east and St Mary's Churchyard on the south west.

Generally, the junction is dominated by vehicular traffic with heavy cycle flow in the peak periods on the CS7 as well as cyclists on Walworth Road. The footways are generally wide enough to accommodate the steady footfall of shoppers and people using the bus and train interchange. There is relatively less street clutter due to the recent Elephant and castle scheme that saw the removal of the gyratory to the north.

In the existing road layout there are a number of issues facing pedestrians and cyclists:

- Pedestrians are crossing Walworth Road to access Elephant Road but there is no crossing here. However, this issue is being picked up by the LB Southwark and is likely to be delivered as part of the Elephant Park development.
- From Walworth Road cyclists find it difficult to access the ASL.
- From the south cyclists struggle to get past vehicles to access the off carriageway cycle lane that runs northbound to the west of the junction.

Weaving of north bound cyclists and cyclist from Walworth Road needs to be addressed.

- Arrangements for south bound cyclist need addressing as left turning vehicles weave across the path of cyclists.

Collision Issues

34 personal injury collisions occurred in the 36 month period ending 31st October 2016, of which one (2.9%) was a fatality and three (8.8%) resulted in serious injuries. This is slightly below the comparative rate of 12.6% for ATS junctions on the TLRN in Inner London Boroughs.

Key collision issues at the junction of A3 Elephant and Castle Southern Roundabout include:

- 15 collisions (44.1%) involved a pedal cyclist
- 8 collisions (23.5%) involved a bus or a coach
- 7 collisions (20.6%) involved a goods vehicle
- 2 collisions (5.9%) involved a u-turning vehicle

Table 3 - Comparative Collision Rates

Factor		Collisions		Expected Rate (%)[2]
		Number	%[1]	
Total	Total	34	100.0%	-
	Total per year	11.3	-	-
	Total per km year	-	-	xx.xx / xx.xx
	Priority Score	0	-	-
Injury	Fatal and Serious	4	11.8%	12.6%
	Slight	30	88.2%	87.4%
Modal	Pedestrian	7	20.6%	21.6%
	Pedal Cycle	15	44.1%	25.3%
	Powered Two Wheeler	7	20.6%	25.4%
	Bus or Coach	8	23.5%	11.2%
	Goods Vehicle	7	20.6%	14.5%
Manoeuvre	Overtaking	3	8.8%	9.4%
	Right turning	1	2.9%	21.0%
	Left turning	3	8.8%	10.1%
	U-turning	2	5.9%	2.1%
Cond.	Non-dry	3	8.8%	17.1%
	Dark	9	26.5%	34.8%

[1] *Shading indicates where a collision rate is higher than the comparative average*

[2] *Comparative rate is derived from Collision Levels in Greater London Issue 14: 2011 to 2013, comparison table: ATS (Inner Borough)*

2. Commission

To appoint Traffic Design Engineering (TDE) to carry out feasibility and concept design. TDE will act as the Principal Designer and carry out all the duties under the CDM Regulations 2015.

The scope of this commission is for TDE to consider the content of the A3 Elephant and Castle Southern Roundabout collision study report (as supplied Appendix A) together with the comments and recommendations provided by key internal stakeholders at the site meeting (as supplied in Appendix B) and further develop these to:

- Provide feasibility design options based on the potential interventions to reduce road danger, including exploring opportunities to improve cycle facilities, encourage pedestrian priority, reduce traffic dominance and vehicle speeds and where possible introduce urban realm improvements and / or green infrastructure (See also, 'Strategic Context');
- Provide concept design of the preferred option;
- Utilise the results from the base Healthy Streets surveys undertaken by TDE to inform the design;
- Assist the Sponsor to assess the impact of proposals using the TfL's City Planner strategic assessment framework tool;
- Provide designs to TfL Network Performance in order for them to undertake traffic modelling of recommended solutions for the design of all options and to assess local impacts. TfL Network Performance will be commissioned separately by the TfL Sponsor;
- Provide technical input to the Sponsor for the Business Case and other required paperwork in preparation for associated programme and portfolio boards;
- Calculate potential collision savings and other quantifiable benefits which may be derived, such as more walking and cycling; and,
- Provide a detailed Microsoft project programme and cost estimate for TDE tasks related to carrying out the feasibility and concept designs.

In order to adhere to the required timescale, it is recommended that certain surveys required by the LoHAC design team for detailed design may be required to be procured during the concept design stage. All additional surveys required to carry out the design, will require prior authorisation from the Sponsor. TDE to provide specification and quotations to the Sponsor so that separate survey commissions can be agreed.

The design has to be produced and comply with all the relevant design standards and TfL specific requirements.

Figure 1 overleaf shows the geographic scope of the study with the local context.

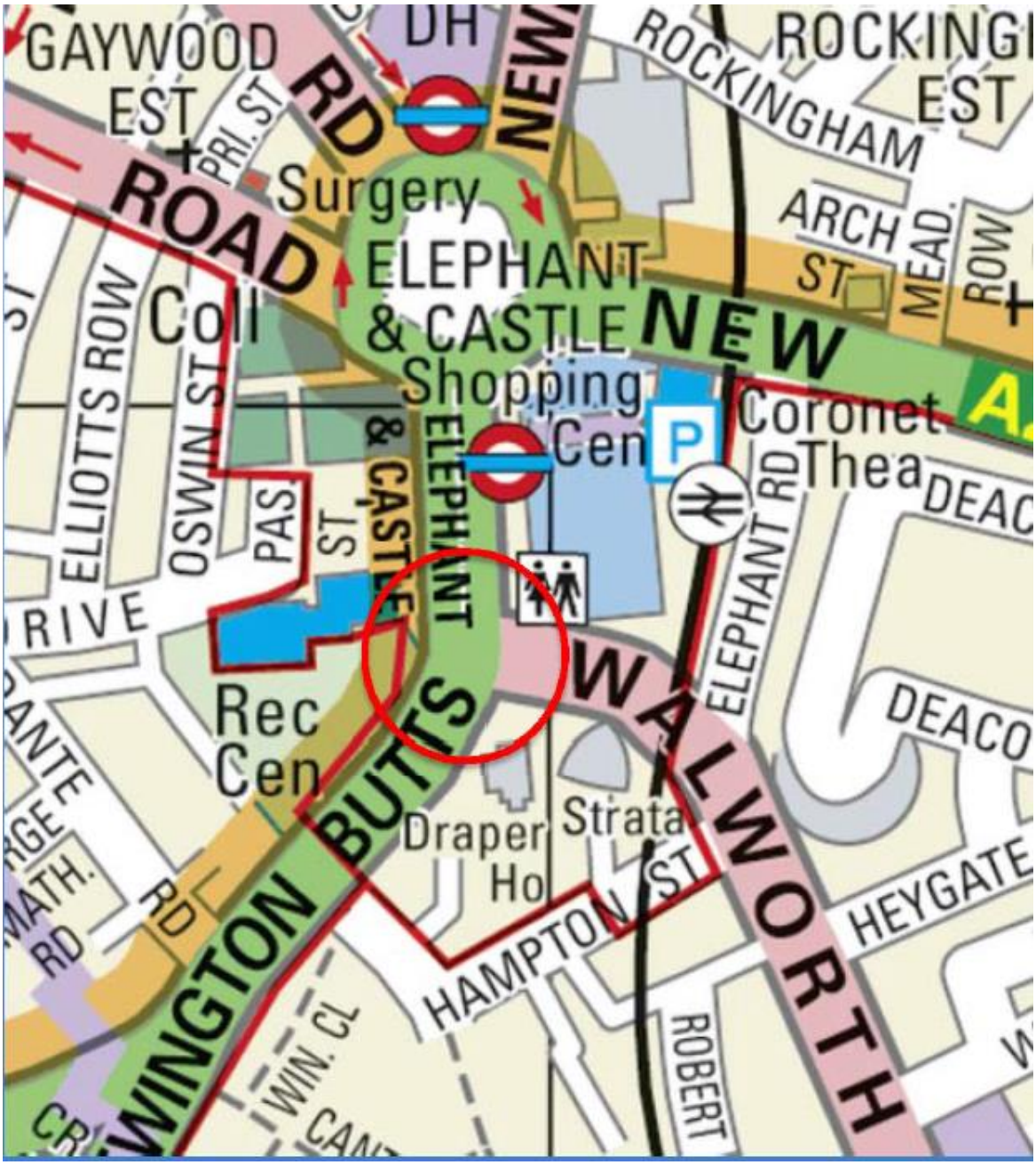


Figure 1 - Network in scope for intervention

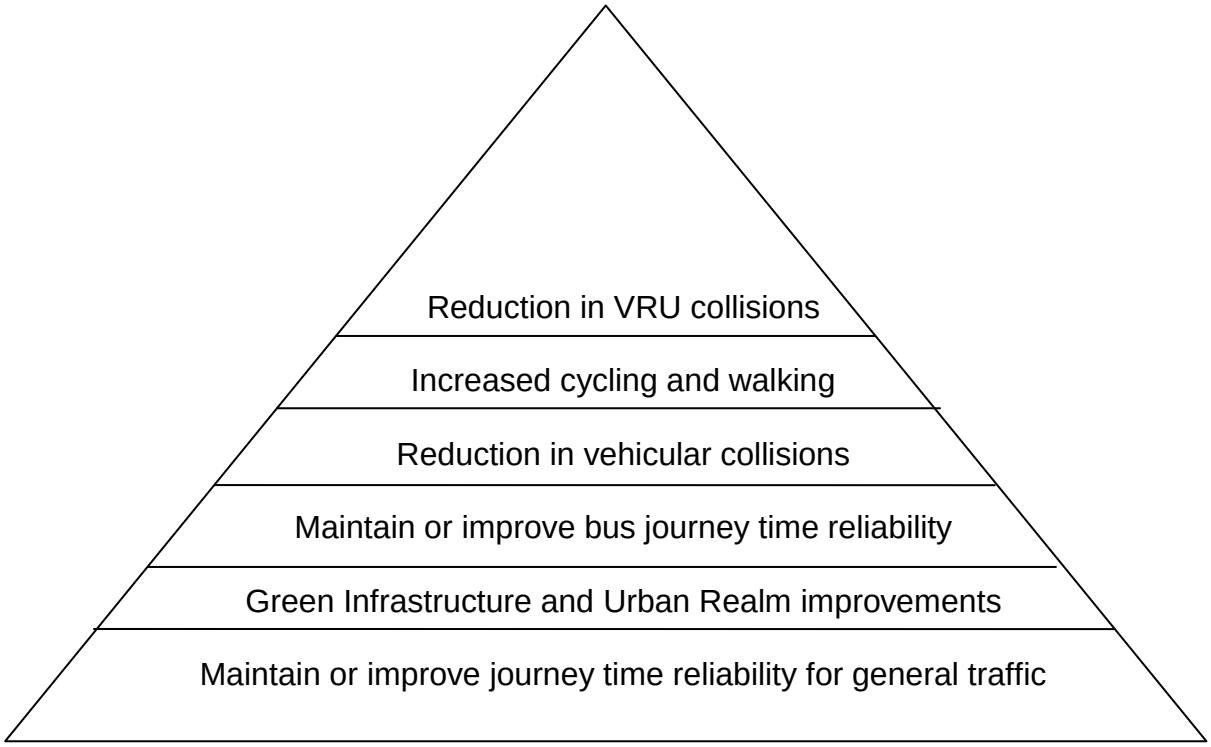
<u>Considerations – Safer Junctions Programme Wide</u>

Initial findings from the first collision studies into new locations indicate that the challenges highlighted at some Safer Junction locations may include the need to make trade offs. For example:

- Traffic re-timings of signals and the large impact of changes to traffic across several lanes, but this could impact negatively on the bus network

- Pedestrian behaviour (with no historical record of personal injury collisions) of crossing injudiciously or informally across junctions could be resolved by an all-round pedestrian signal stage
- Side road closures resulting in more stakeholder agreement being needed
- The delay of improvements to a location because of other planned changes or factors

It is accepted that in order to provide a holistic approach to reducing road danger, some design considerations may be in direct contradiction with each other. To assist in the prioritisation of proposed measures, this hierarchy of needs is to be followed:



There are several elements to the Design Strategy for the Safer Junctions programme which should be considered.

Design Strategy - Overarching Principles

- Highways Infrastructure – To see significant improvements in addressing collision patterns and reducing road danger for vulnerable road users, meaningful changes and improvements are needed to the highways infrastructure. The provision of direct crossings and raised tables can highlight pedestrian priority and reduce the dominance of vehicular traffic.

  For cyclists, direct cycle lanes, tracks, two-stage right turns, left-turn on footway, and early release traffic signals should be investigated, especially where there is future cycle demand. ASLs and advisory cycle lanes are not considered sufficiently transformational for Safer Junctions.

  The use of public transport for longer trips should be encouraged by bus priority measures including bus lane extensions and bus gates should also be considered. Wherever possible, impacts to the bus network should be mitigated.

- Street Makeover - By encouraging more pedestrians to spend time in the area through enhancing the place function of the site, vehicle dominance in the area will be reduced.

  Streetscape and urban realm improvements can design out conflict points while enabling pedestrians to safely follow desire lines. This can include, but is not limited to removal of clutter, introducing pocket parks and green infrastructure (eg. sustainable urban drainage), wider, better quality pavements and cycle parking. This also helps support a number of Healthy Streets indicators including shade and shelter, places to stop, people feel relaxed and clean air, which would not routinely be addressed through traditional highway infrastructure improvements.

  An Urban Designer has been appointed to the Safer Junctions programme to provide technical input and strategic guidance to facilitate the incorporation of Streetscape and urban realm improvements into the designs for this Safer Junction.

- Safety and Security – Reduced speed limits, especially 20mph, are known to reduce the severity of collisions and encourage more active forms of transport. A high quality urban environment will in turn result in more passive surveillance to reduce crime and encourage more active forms of transport.

- Future Proofed – The pressures on the street are ever-changing and so the design needs to be adaptable to change: flexible on a daily basis and resilient over the long-term. The Safer Junctions programme will need to respond to any known intensifying role as a focal point for pedestrian, cyclist or motorcyclist activity.

- Innovative – The deliverables need not rely solely on tried and tested measures. Where appropriate, efforts should be made to trial innovative and creative solutions in order to reduce road danger.

- Safer Streets for All – A dimension of the design strategy is to increase motorist awareness of all vulnerable road users. The design should support the provision of alternative modes such as walking and cycling, in particular focussed on shorter trips to local main attractors where there is most scope for increased use, such as nearby town centres and public transport interchanges.

  Where appropriate, having a distinct change in the character of the junction may be appropriate to encourage motorists to slow down, especially where cyclists travel and where pedestrians cross frequently.

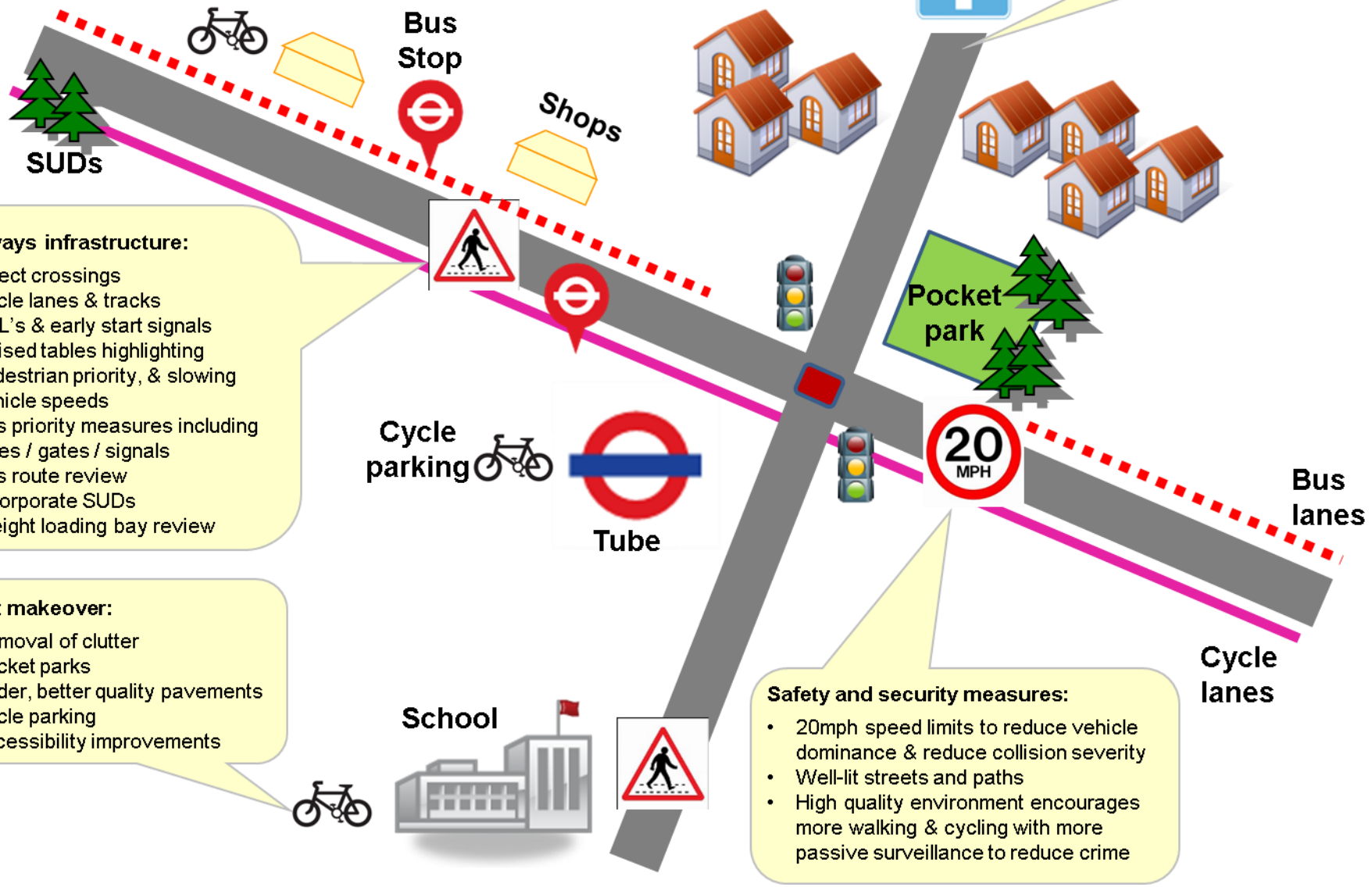
  Whilst additional motorised trips should not be encouraged within the Safer Junctions programme, the safety of motorcyclists should be protected through the design of the individual projects.

- Parking and Loading - Special consideration should also be given to loading and parking along the route and maintaining or improving servicing arrangements. Loading pads which allow for footways to open up during the busiest periods is one approach that could provide for different users at different times of the day.

- Behaviour Change Initiatives – Where possible, if a location is identified which may also benefit from softer road safety interventions, this should be highlighted to the Sponsor to bring to the attention of colleagues in Customer Communication and Technology (CCT).

Safer Junctions Template

Examples of measures which could be included in a Safer Junctions design



Traffic reduction measures:

- Removal of through traffic from selected streets, such as residential zones

Highways infrastructure:

- Direct crossings
- Cycle lanes & tracks
- ASL's & early start signals
- Raised tables highlighting pedestrian priority, & slowing vehicle speeds
- Bus priority measures including lanes / gates / signals
- Bus route review
- Incorporate SUDs
- Freight loading bay review

Street makeover:

- Removal of clutter
- Pocket parks
- Wider, better quality pavements
- Cycle parking
- Accessibility improvements

Safety and security measures:

- 20mph speed limits to reduce vehicle dominance & reduce collision severity
- Well-lit streets and paths
- High quality environment encourages more walking & cycling with more passive surveillance to reduce crime

Other Relevant Investigations

Currently Strategy and Network Development (S&ND) is aware of the following ongoing investigations and projects at the junction of the A3 Elephant and Castle Southern Roundabout which TDE should be aware of:

- The Elephant Park housing and public realm development project on the north-eastern side of Walworth Road is in construction and is currently scheduled for completion in 2021.

  London Borough of Southwark officers have indicated that a controlled pedestrian crossing on Walworth Road is proposed as part of the development. At this stage TfL does not have details of the precise location or programme of construction. The Safer Junctions investigations also considered the introduction of a new pedestrian crossing on Walworth Road, but as this element of the project is already being investigated elsewhere, this recommendation has been removed from the Safer Junctions Engineering Brief.

- The wholesale redevelopment of the Elephant and Castle Shopping Centre was approved by the Council in July 2018 and is currently awaiting GLA approval.

- London Borough of Southwark is investigating the removal of general traffic from Walworth Road. This is currently in feasibility design and traffic modelling is in progress.

Proposed Measures for Feasibility and Concept Design under this Commission

These proposals are based on the recommendations made in the Collision Study prepared by TDE, comments made at the site meeting of 22nd March 2018 and at the post-site meeting involving key internal stakeholders held at the TfL offices at Palestra on 3rd April 2018.

TDE are instructed to investigate and provide feasibility and concept designs, which could include a combination of the following proposals:

1. **Insufficient and under-utilised cycle facilities on Walworth Road (east arm) approach**

   Summary: Cycle facilities are provided on this approach to the junction, but they are insufficient for the high volume of cyclists at this location. There is a central cycle feeder lane, reducing the risk of westbound cyclists being struck by vehicles turning left into Newington Butts as well as a cycle track guiding cyclists over the footway towards the toucan crossing over Newington Butts (south arm). In addition there is an Advanced Stop Line (ASL).

   In practice however, large vehicles were observed straddling the central cycle feeder lane, increasing the risk of cyclists being struck alongside and creating

an intimidating environment for cyclists. The ASL appears to be 7.5m deep but is insufficient to accommodate the large volume of cyclists at this location. Furthermore, the cycle track and toucan crossing facility was not seen to be used by any cyclists at the time of the site visit, despite the high levels of cycling at this location, suggesting that it is greatly under-utilised.

Proposal: 1. Realign the lane markings on the westbound approach and around the southern area of the roundabout so that they align better, improving lane discipline. 2. Check the depth of the ASL in order that it accommodates the expected volume of cyclists. 3. Investigate the potential to introduce a bus and cycle gate on Walworth Road. 4. Investigate the potential to introduce a 'hold the left' cycle facility at this location.

Potential impacts: May impact junction capacity. Potential impact to traffic will be determined by traffic modelling, which will be carried out by NP. Option 3 is understood to be significantly expensive, but this would have greater benefits for vulnerable road users and Buses and would negate the need to carry out option 1 as well.

2. **Northbound cyclists on Newington Butts (south arm) have difficulties passing general traffic queues to access the off-carriageway cycle track**

Summary: The northbound off-carriageway cycle track does not commence until cyclists are within the ASL. A bus lane enabling cyclists to bypass queuing traffic on this approach is provided for a short distance up to the stop line, but is only very short. Consequently, northbound cyclists frequently have difficulties passing other vehicles on the approach to Elephant and Castle Southern Roundabout. In addition to hindering cycle passage, there is also an increased risk of side-swipe type collisions possibly due to the narrow width of the bus lane.

Proposal: Increase the length of the northbound off-carriageway cycle track and extend the bus lane to the stop line.

Potential impacts: There may be limits to the potential for cycle-track extension due to the relatively narrow available footway widths at this location.

3. **Arrangement of northbound off-carriageway cycle facility may increase risk of side-swipe type collisions amongst cyclists**

Summary: In the existing road layout there is an off-carriageway cycle track on the western footway of Newington Butts to enable cyclists to continue towards central London adjacent to, but separated from, the signal controlled traffic arrangements on the carriageway. There is a short section where cyclists from Walworth Road can join the northbound off-carriageway cycle track, but it is relatively short and narrow for the volumes of cyclists both northbound and westbound. Although in general cyclists were observed to respectfully allow others to merge safely, there is a risk of side-swipe type

collisions between cyclists, particularly if cycle flows continue to increase in the future.

Proposal: Investigate altering the priority arrangement for cyclists entering the cycle track or widen the cycle track so that cyclists can merge more easily.

Potential impacts: There may be limits to the extent the cycle lane can be widened given the available footway widths at this location.

4. **Mixture of controlled and uncontrolled crossing points in quick succession may confuse visually impaired pedestrians on Newington Butts western footway**

Summary: In the existing road layout, westbound pedestrians crossing over the toucan crossing to the western footway, then have to cross the northbound cycle track using an uncontrolled facility. Notwithstanding item 9 below, there is no stagger between the controlled and uncontrolled crossing facilities. Visually impaired pedestrians may not appreciate the mixture of crossing facilities and either become disorientated or use the crossing facilities incorrectly. Should a visually impaired pedestrian approach from the west and use the uncontrolled facility first, they may assume that the tactile paving provision at the toucan crossing over Newington Butts is also uncontrolled and vice versa.

Proposal: Review the arrangement of the pedestrian facilities on the western footway of Newington Butts between the toucan crossing and over the northbound cycle track to ensure that visually impaired pedestrians can easily and safely navigate the junction.

Further amendments to the uncontrolled pedestrian crossing over the cycle track may be required to alert visually impaired pedestrians if it is to remain in its current location, such as zebra crossing type markings as provided at bus stop bypasses.

Potential impacts: Amending the arrangement to provide a stagger between the toucan crossing and the cycle track crossing may mean that visually impaired pedestrians struggle to navigate the uncontrolled crossing point after using the toucan crossing. Sighted pedestrians may still however cross at this location as it is in direct alignment. Extending the width of the point where pedestrians may cross the cycle track may hinder cycle progression.

5. **Pedestrians and cyclists have to cross Newington Butts (south arm) in two stages resulting in long wait times**

Summary: It was observed that pedestrians and cyclists crossing Newington Butts (south arm) have to cross the junction in two stages. This can result in long wait times on the central island, hindering passage and discouraging cyclists in particular, from using this facility.

Proposal: Review the phasing of the junction to ensure that cyclists and pedestrians can cross Newington Butts more quickly and easily. This may include the provision of a one-stage crossing over Newington Butts or reviewing the timings to reduce wait times at the crossing.

Potential impacts: May significantly impact junction capacity and result in longer wait times for pedestrians and cyclists at the crossing points. Potential impact to traffic will be determined by traffic modelling, which will be carried out by NP.

6. **Existing southbound lane arrangement outside Elephant and Castle station and shopping centre results in left-turning traffic weaving across the path of cyclists**

Summary: In the existing road layout, there is a wide southbound bus lane covering several busy bus stops outside Elephant and Castle underground station and shopping centre. The presence of the bus stops results in there being restricted space to enable drivers to position themselves to turn left in good time. This results in left-turning drivers weaving across the path of southbound cyclists on the approach to Walworth Road (east arm).

Proposal: Review the lane marking arrangement and lane widths of the southbound carriageway outside Elephant and Castle underground station and shopping centre. Investigate the potential to introduce a bus and cycle gate on the southbound carriageway at the junction with Walworth Road.

Potential impacts: May impact junction capacity. Potential impact to traffic will be determined by traffic modelling, which will be carried out by NP. At this early stage of the development, it is unknown how much footway will be available and if the underground station entrance locations will be altered as a result of the proposed Elephant and Castle shopping centre redevelopment.

7. **Geometry of the central island results in southbound vehicles veering into adjacent lanes**

Summary: The existing almond shaped traffic island in the centre of the junction deflects southbound traffic and results in vehicles straddling adjacent lanes, increasing the risk of side-swipe type collisions.

Proposal: Review the lane marking alignment on the southbound carriageway through the junction. This includes the feasibility of removing the almond shaped central island and introducing a T-junction arrangement.

Potential impacts: May impact junction capacity. Potential impact to traffic will be determined by traffic modelling, which will be carried out by NP.

Asset Operations elements to deliver in advance of the TDE design

Certain issues have been observed on site and can be delivered in advance of TDE designing the project. These are to be passed to TfL Asset Operations to rectify.

8. **Missing tactile paving provision over northbound cycle track on Newington Butts**

Summary: In the existing road layout, westbound pedestrians crossing over the toucan crossing to the western footway, then have to cross the northbound cycle track without signal control. During the paving works, the tactile paving, indicating the presence of an uncontrolled crossing over the northbound cycle track, was not replaced. Visually impaired pedestrians may be unaware that they are about to enter an area where cyclists may be travelling. There is an increased risk of visually impaired pedestrians being struck by cyclists as a result.

Proposal: Replace the missing tactile paving arrangement at this location.

3. Methodology

Identifying potential interventions

TDE is required to produce feasibility designs for each site identified as a Safer Junction site. These may vary in cost for delivery; PPD Commercial should lead on all cost estimating for emerging designs, in collaboration with the Designer. The final interventions are expected to remain within an overall budget of circa £5m (including all design development, project management, sponsorship, communications, and miscellaneous delivery costs).

Early Contractor Involvement will be considered by PPD, in order to inform the cost estimates, and help the designer address risks at any early stage (e.g. in relation to statutory undertakers and procuring necessary surveys).

S&ND will make available any relevant completed studies, which describe issues and suggest solutions. TDE should not rely on collating existing ideas, and will be expected to develop design recommendations independently.

Innovative and creative solutions may be proposed, but non-standard or unapproved techniques will need to be agreed by the Sponsor before significant work is undertaken in developing these options.

The design should address the following issues:

- Improve road safety, focussing on, but not limited to vulnerable road user collisions;
- Facilitating public realm improvements to encourage more people to spend time in the area and maximise the junction's potential against TfL's Healthy Streets indicators;
- Improving local ambience through increasing TfL's green estate. This will also mitigate the exposure of pedestrians (especially children), cyclists and motorcyclists to fumes from stationary traffic and maximising opportunities for carbon capture and sequestration, addressing environmental impacts;
- Improving accessibility and severance issues for pedestrians and cyclists, including cycle parking provisions;
- Journey time reliability should be maintained or improved for buses where feasible;
- In acceptance of the role of Principal Designer, all CDM Regulation 2015 requirements will apply including managing, co-ordinating and programming the feasibility and concept design to include all aspects for delivering the design (i.e. Engineering and Technical Services, Traffic Infrastructure, Network Impact Management, WCAP, Highways Technical Approval Authority, external including contractors for surveys and London Borough of Lambeth etc.). The S&ND Principal Sponsor will send a letter formally appointing TDE as Principal Designer and provide the initial PCI separately.

Feasibility designs

TDE is expected to undertake 2D geometric designs of intervention measures for identified locations. CAD based designs should include/ identify:

- General highway layout (existing and proposed), showing the highway boundary;
- Geometric alterations to the highway;
- Land take requirements, if required;
- Lane definition; and,
- Statutory plant, and furniture affected by the proposals and the implications for the design.

Where unavailable, topographical surveys may be required for the purpose of providing suitable feasibility designs however this should be agreed with the Sponsor prior to commissioning.

Where required, TDE to assist the Sponsor in presentation of the proposals to the Streetscape Design Review Group (SDRG).

TDE, in conjunction with the Sponsor, is to provide PPD with the draft feasibility designs to facilitate construction cost estimates for the project.

Concept design of the preferred option is then to be progressed.

Concept design

The final concept design package is to include:

- General Arrangement drawings showing proposed dimensions;
- Site Clearance drawings;
- Signs and Road Marking drawings; and,
- (where appropriate) Outline Urban Realm improvement designs (in conjunction with the nominated Urban Designer.

A Risk workshop with stakeholders will be arranged by PPD during the concept design stage, and output to be included within ARM. TDE will be required to provide their technical input. The output of this meeting will be a detailed Risk Register and Issues Register to be maintained by PPD using ARM.

TDE, in conjunction with the Sponsor, is to provide PPD with the draft concept design to facilitate construction cost estimates for the project.

Assess impact of proposals using strategic assessment framework

TDE will be provided with a Fingerprint output from TfL's City Planner strategic assessment framework tool for each junction. The attributes of the framework include the following Transport Outcomes:

- Safety – Road casualties and crime levels
- Active – Active travel, current and potential cycling and walking levels
- Green – Air quality
- Space efficient – Freight flow levels and car dependency
- Connected public transport – Improved connectivity
- Accessible public transport – Access inequality
- Quality public transport – Bus performance, demand and provision
- Sustainable, active travel developments – Car dependency and poor connectivity
- Unlocking development – Forecast population and employment growth

Once feasibility designs are defined, TDE should assist the Sponsor in completion of a high-level evaluation of all options based on this assessment framework.

Local Modelling of options

Local modelling will be required in order to undertake the assessment of network performance/engineering feasibility. Separate briefs to Network Performance and Traffic Infrastructure will be issued by the Sponsor.

Public Consultation

As a result of the limited timeframe for delivery, public consultation will only take place where there is a statutory requirement. Where no formal public engagement is required, extensive pre-engagement via TfL CCT will take place throughout the design period to maximise the potential for local stakeholder buy-in.

Where formal public consultation is to take place, TDE is to assist with the preparation of material for the consultation.

Key Study Stages and Deliverables

Stage 1

- Project initiation meeting

- Brief note outlining TDE's understanding of study objectives and strategic and local objectives

Stage 2

Following confirmation of the above with S&ND, the following is expected:

- Design of interventions to feasibility and concept level as specified
- Assess impact of each proposal on a local level for all road users utilising the assessment framework
- Periodic spend profile to end of concept design
- Detailed Microsoft Project plan to end of concept design
- Designer's Response to the Stage 1 Road Safety Audit and TfL Highways Approval Document (HAD) for the Technical Approval process
- Technical input to the TfL Engineering Scheme Impact Report (SIR)

Deliverables

In addition to the common deliverables noted in the next section, the following items should also be provided:

Option drawings

Any option drawings should be produced in line with recommendations made by key internal stakeholders in attendance at the Safer Junctions site meetings and / or wash up sessions.

The Sponsor will select the optimum design option which captures the design objectives within the scope of this commission, based on the hierarchy of needs established earlier in this Commissioning Brief.

Utility Surveys

Utility surveys, e.g. C2's shall be undertaken and subsurface utilities are to be determined with the project area. This shall be undertaken during the course of this task order. During the feasibility and concept design stages, the LoHAC designer is to be available for early engagement activities in order to understand the rationale behind design decisions and to ensure that any surveys necessary to undertake the detailed design are procured in good time to meet the agreed timescales. TDE are to assist in the procurement and commissioning of these surveys.

Road Safety Audit

On completion of the concept design, the Sponsor will arrange for a Stage 1 Safety Audit to be undertaken by TfL's in-house Road Safety Team. The Safety Audit reports shall be received by TDE who shall consider and provide a designer's response in respect of any remedial works or additional features considered necessary.

Construction and Design Management

CDM Regulations 2015 should be considered as part of assessing viability of any design. The S&ND Principal Sponsor will send a formal letter of appointment to TDE and provide the Pre-Construction Information (PCI) documentation.

DELIVERABLES

Common Deliverables	Required?
Project Plan that sets out time and cost details, including project milestones and deliverables.	☒
Periodic reports to coincide with TfL 4-weekly accounting periods detailing time worked, money spent, and percentage complete.	☒
Report on work undertaken and implementation recommendations (no report without a recommendation). The Report will include a single page Executive Summary as a forward outlining the Commission objectives and conclusions, and a single page Design Statement outlining the key design parameters and decisions.	☒

The following will be included in the Report or produced as separate documents:

Common Deliverables	Required?
Appropriate plans (AutoCAD and PDF format)	☒
Traffic counts – To be discussed and confirmed with Sponsor	☒
Appropriate Traffic Models giving:	
Base	☐
Options	☐
Preferred option	☐
Signed off SIR	☐
Topographical survey - To be discussed and confirmed with Sponsor	☒
Stage 1 Road Safety Audit – To be completed by TfL's in-house Road Safety Audit team	☒
Stage 1/2 Road Safety Audit combined	☐
Road Safety Audit Designer's Response	☒
Location of Statutory Undertakers plant and potential implications to design.	☒
Streetscape Design Review Group (SDRG) approval, where required	☒
Highways Technical Approval at the end of each stage	☒
Network Performance (NP) approval	☒
Consultation documentation (plan, text etc.)	☒
Summary results of consultation exercise(s)	☒
Cost estimate for construction	☐
CDM documentation	☒
Public consultation drawings (where required)	☒
TMO drawings and schedules	☒
Environmental Checklist	☒
Healthy Streets Check (with Sponsor)	☒
Guardrail Assessment	☒
Design change log	☒

4. Governance

The S&ND Portfolio Sponsor for Road Safety is accountable for the commissioning of this work and the requirements set out in this brief. A PPD Project Manager has been appointed for early involvement of this project, prior to handover at the detailed design stage. The PPD Project Manager is accountable or responsible for all Health and Safety and Project Management activities as set out in the Pathway RACI matrix.

The S&ND Principal Sponsor (based in the appropriate Network Sponsorship Area Team) will be responsible for stakeholder engagement, decision making, and project governance during design development. They will provide appropriate scrutiny and challenge to the Project Manager, who will oversee the design schedule and cost estimates.

TDE should provide a weekly progress report.

A project Progress Meeting will also take place on a monthly basis. TDE should be available for this and may be invited to attend for part of the meeting. There may be other meetings between the Sponsor and TDE however this will be confirmed / requested over the course of the commission period. Please find attached the governance structure in Appendix C.

5. Timescales

TfL has committed to Will Norman, the Walking and Cycling Commissioner for London, to complete all construction work and Gate 5 approval for site work at this location by April 2020.

In order to meet this deadline, TDE are requested to complete the feasibility and concept design with public consultation as outlined in this brief by 31 December 2018.

Indicative milestones for the final design are:

By end March 2019	**Feasibility, concept design and public consultation complete (8 months)**

Interim target dates: 10 weeks each for feasibility and concept design stages and four weeks for each Stage Gate sign off.

Early August 2018	*TDE to respond with understanding of brief, output delivery programme and fee estimate (one week)*
Mid August 2018	*S&ND to confirm commission (one week)*
Mid October 2018	*Feasibility design to be completed with amendments incorporated including Highways TAA submission*
November 2018	*Gate 2 sign-off by S&ND*
January-February 2019	*Public consultation to run concurrently to the concept design including one month to collate consultation report.*
Mid February 2019	*Concept design to be completed with amendments incorporated including Stage 1 Road Safety Audit and Highways TAA submission*
March 2019	*Gate 3 sign off by RSM-S*
By end of July 2019	**Detailed design complete (4 months)**
By end of April 2020	**Construction complete (9 months)**

6. Appendices

Appendix A – A3 Elephant and Castle Southern Roundabout collision study

Appendix B – Summary of site visit / meetings with key internal stakeholders

Appendix C – Strategic Assessment Framework 'Fingerprint'

Appendix D – 'Before' Healthy Streets check

Appendix E - Safer Junctions Governance Structure

Appendix A – A3 Elephant and Castle Southern Roundabout Safer Junctions collision study

Elephant and Castle
(Southern Roundabou

Appendix B – Summary of site visit / meetings with key internal stakeholders

Elephant and Castle meeting notes 22031

Appendix C – Strategic Assessment Framework 'Fingerprint'

Table A: Strategic Network Check

STRATEGIC CHECK

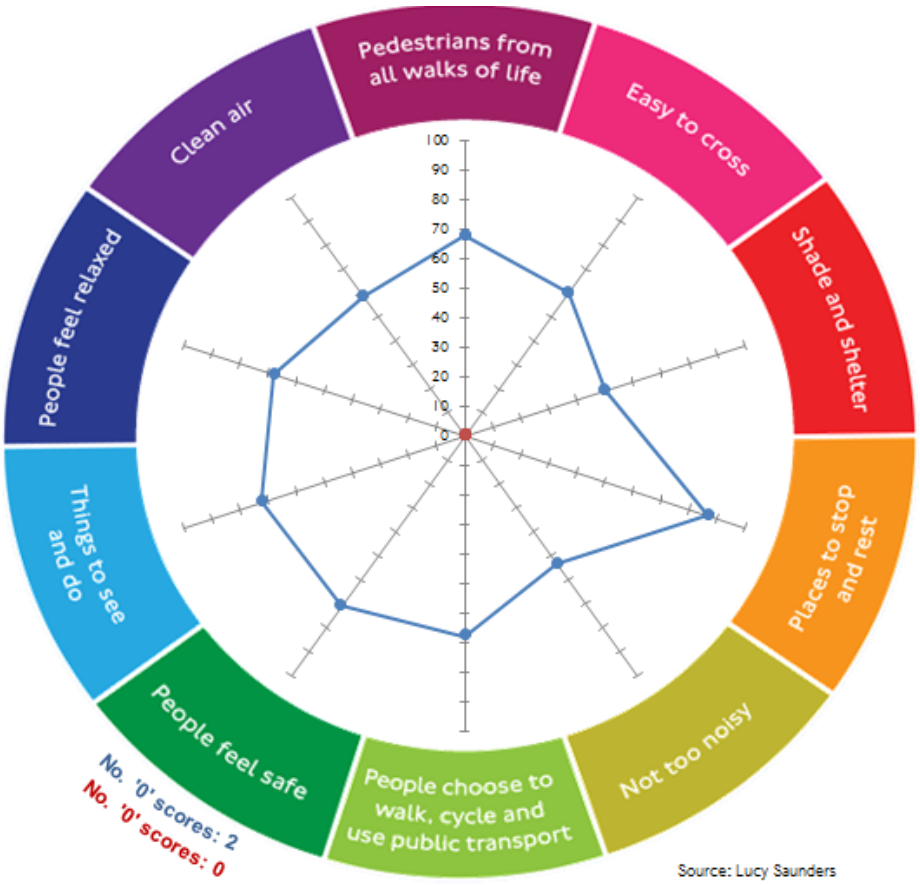
	Existing/Committed Cycle Network	No
	Strategic Cycle Analysis - Priority	Yes
	Strategic Movement & Freight Network	Yes
	Bus Network	Yes
	Bus Priority Corridor	No
	Low Emission Bus Corridor	No
	High Patronage Bus Corridor	Yes
	Existing Major PT Interchange	Yes
	Growth & Oportunity Area	No

Table B1: Outcome Scoring (short version)

AREA OUTCOME SCORING

Transport Outcomes		Score	Importance Description	V Low	Low	Medium	High	V High
Active	Current & potential cycling & walking levels	+V High	Highest ped & cycling demand & potential					
Safe	KSI and crime levels	+V High	Highest accident and/or crime incidence					
Green	Air quality issues	+V High	Lowest air quality					
Space Efficient	Vehicle flow levels & car dependency	+ High	High vehicle flows and local car ownership					
Connected PT	Existing PT connectivity	+V Low	Highest PT accessibility index					
Reliable Service	Current & forecast bus demand & bus performance	+ High	High patronage & poor bus performance					
Quality Service	Current & forecast bus demand & bus performance	+V High	Highest crowding & lowest comfort					
Inclusive PT	Accessibility level	+V High	Poor accessibility					
Growth	Existing & forecast pop. and employment levels	+ Medium	Average population & employment density					

Appendix D – Base Healthy Streets Check

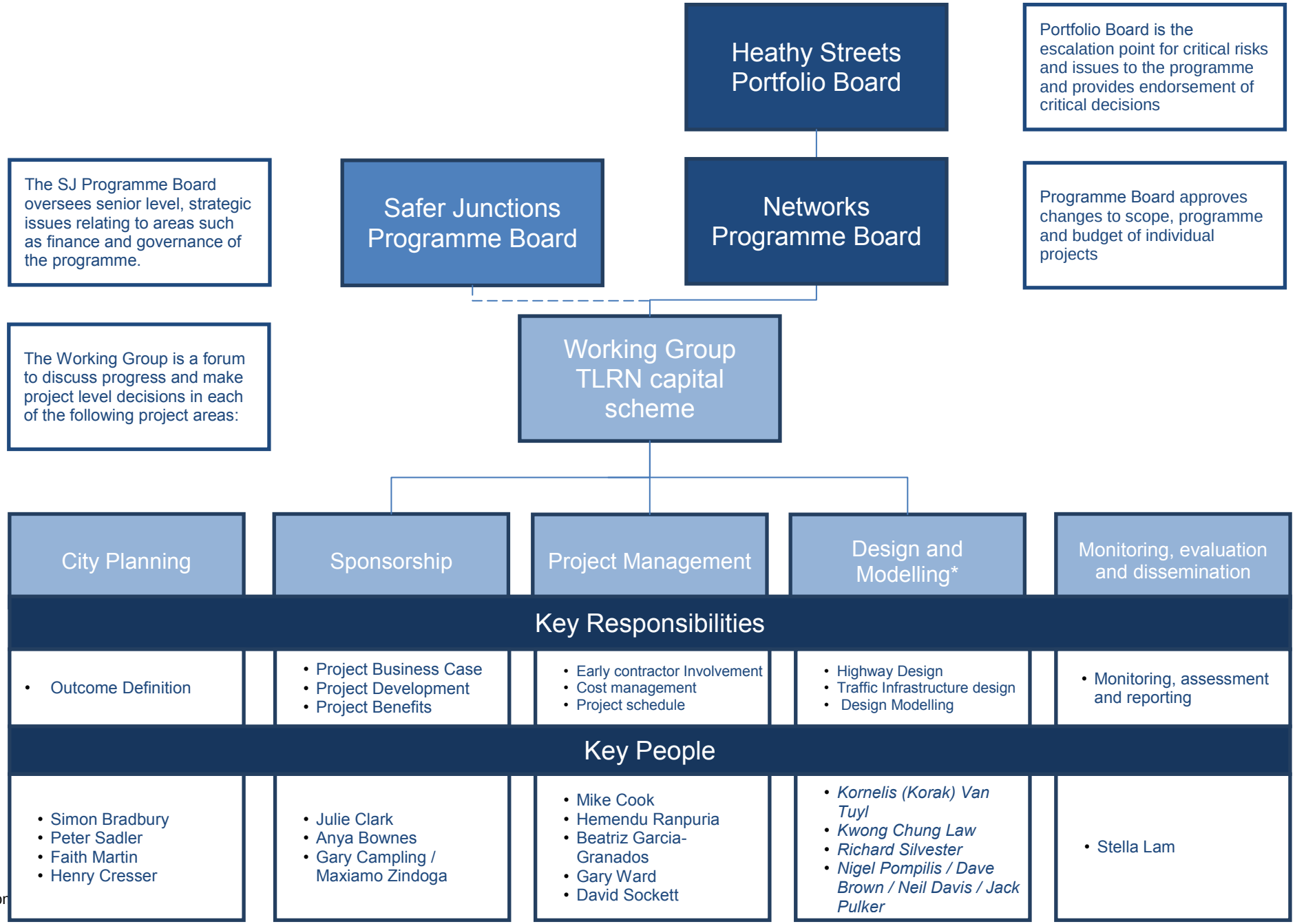


Source: Lucy Saunders

Appendix E - Safer Junctions Governance Structure

*Please note that members of the Design and Modelling team listed overleaf shown in italics are subject to Transformation and consequently the individuals involved may be subject to change.

Safer Junctions Governance



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