
Secretariat memorandum

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Agenda item: 14
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Confidential: Cycle safety

1 Purpose of report

1.1 To reflect on London TravelWatch's approach to cycle safety and to critique TfL's approach. This is a confidential and draft report. This covers:

- Cycling casualty statistics;
- The Principles of London TravelWatch's approach to cycle safety;
- Transport for London's approach to cycle safety
- Our concerns with their approach to improving cycle safety;
- The emerging evidence of Stratford High Street.

2 Recommendation

- 2.1 Members consider whether London TravelWatch should maintain its current approach to cycle safety.
- 2.2 Members consider how London TravelWatch may best encourage a review of the impacts of TfL's approach to cycle safety and respond to our transport users' priority.

3 Background

- 3.1 All local highway authorities have a duty to investigate highways collisions on their roads and to have a programme designed to prevent casualties on their roads. There is much debate as to how this can be achieved, particularly with respect to collisions involving cycles as it is complex.
- 3.2 London TravelWatch's policies for cycling have been developed over a number of years. In 2009 London TravelWatch produced its report: Cycling in London. This was member led and involved a survey of stakeholders. Mostly practitioners from local authorities responded. In 2012 we contributed to the London Assembly scrutiny on cycle safety and in 2014 members confirmed our approach in supporting a scheme of delegation for officers. This latter paper was fully considered by the Board at the time. In August 2014 we met with TfL and subsequently contributed to their consultation on the London Cycle Design Standards. As appropriate officers consult with Board member Champion,

streets issues, Ruth Thompson. London TravelWatch is a member of the Parliamentary Advisory Committee on Transport Safety (PACTS)

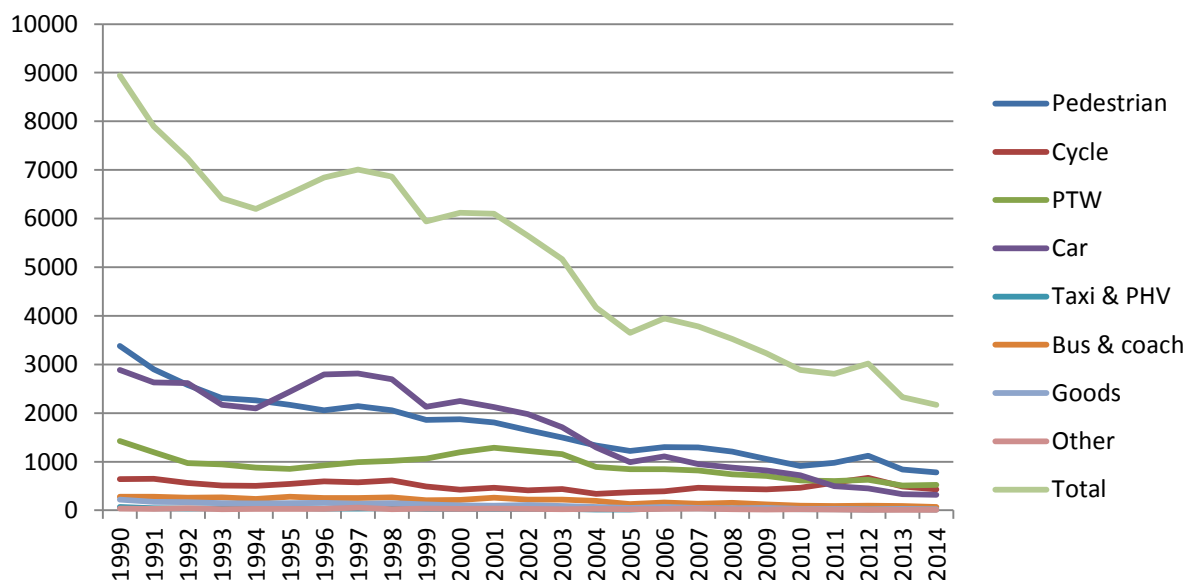
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4 The statistics of cycling collisions and casualties

- 4.1 Over the last 25 years road safety interventions of all types have resulted in a fall in the numbers of those killed and seriously injured on London's roads. This is against a backdrop of a steep rise in population. To give some context the absolute numbers killed and seriously injured on London's roads in 2014 were:

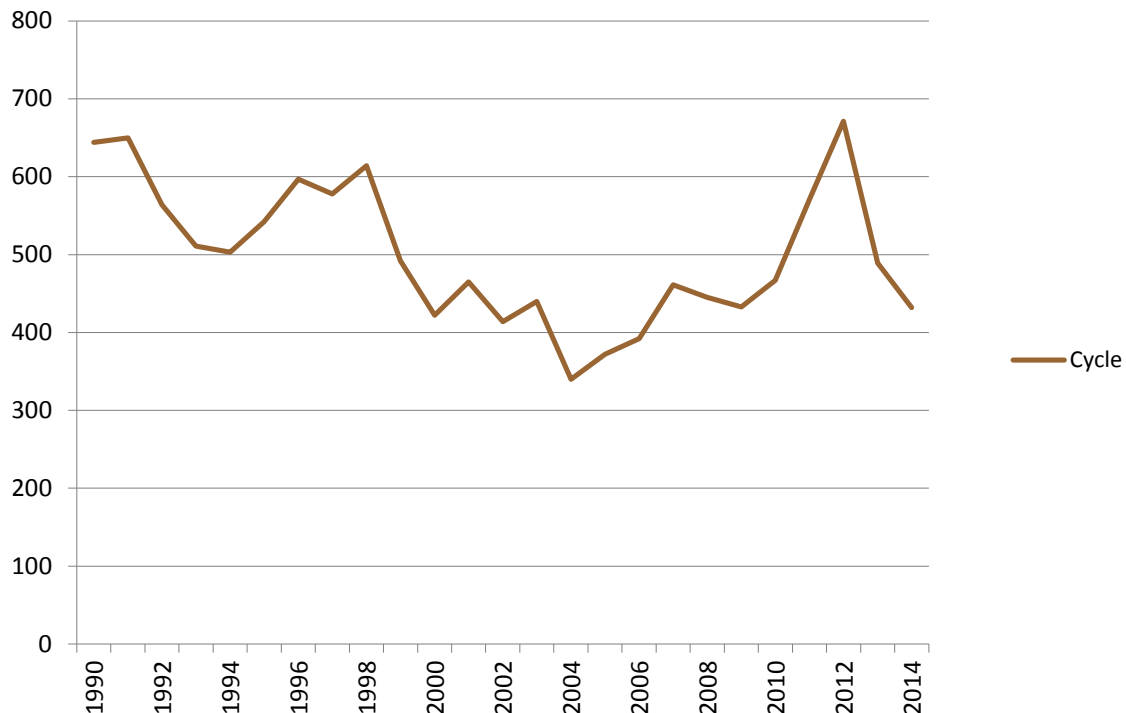
	Killed	Seriously injured	Total KSIs
Pedestrians	64	715	779
Cyclists	13	419	432
Powered two-wheeler	27	499	526
Car occupants	19	297	316
Bus or coach occupants	0	71	71
Other vehicle occupants	4	39	43

Absolute number of killed and serious injuries by mode over 25 years



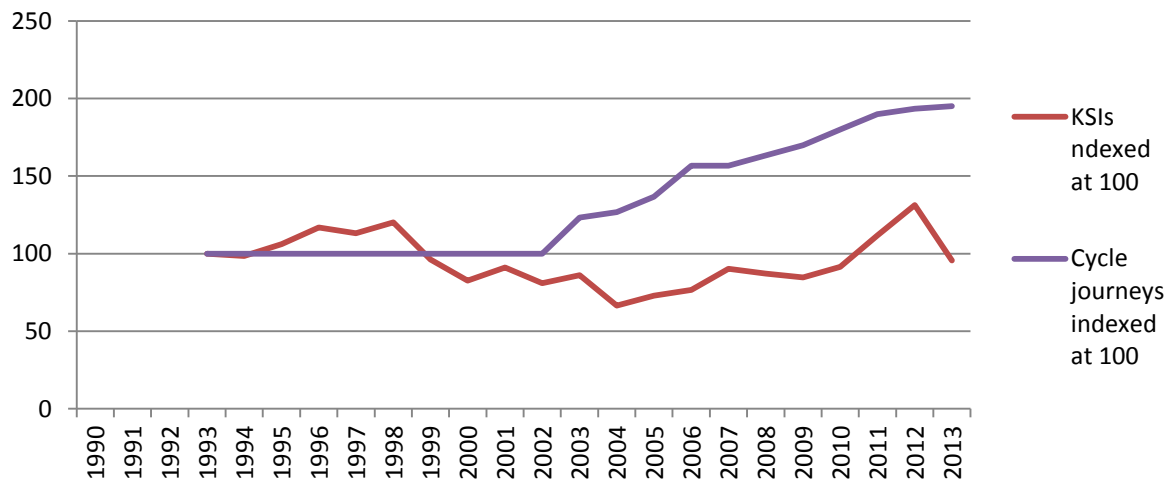
- 4.2 In that time cycle casualties, in absolute terms have dropped a little, but recently may be increasing although this view is heavily influenced by the 2012 figures which were particularly high. The two following years are closer to trend.

Absolute number of cyclists killed and seriously injured over 25 years



- 4.3 However, if account is taken of the rise in cycling volumes it can be demonstrated that the rate of casualties has declined. The volume of cycling is taken from TfL's Travel in London Report 7.

Number of cyclists killed and seriously injured over 25 years and number of journey stages, both indexed to 100 in 1993



- 4.4 This reduction in the rate of cycling casualties has been achieved through many different interventions, mostly by the local highway authorities and Transport for London, under the banner of Education, Enforcement and Engineering. It is the last of these interventions, engineering, that the London Assembly has invited London TravelWatch to reflect on.

5 Principles of London TravelWatch's approach to road safety

- 5.1 London TravelWatch supports 'data-led' interventions that seek to maximise casualty savings per pound spent. To put it another way engineering interventions are very expensive and so London TravelWatch would want to see finite resources spent in a manner that might save most casualties. When responding to consultations we take account of all modes, and prioritise the movement of people over vehicles.
- 5.2 In practice a data-led approach will mean focussing on the redesign of road junctions on heavily trafficked roads with a history of multiple collisions, because it is at busy intersections where the overwhelming number (80%) of collisions and casualties occur. We also support area wide speed management schemes (traffic calming) which is known to be effective in terms of casualty saving and creates a safer cycling and pedestrian experience. We ask that traffic calming takes account of buses where they use the streets involved. This approach is supported by practitioners and based on the evidence that is best summarised by the Road Safety Observatory synthesis of cycle infrastructure research: <http://www.roadsafetyobservatory.com/Review/10143>.
- 5.3 We are supportive of what road safety practitioners describe as understandable, self-explaining roads. This means simple layouts that don't confuse users.
- 5.4 The following are some of the comments we make when consulted regarding proposals to change junction design. This is based on the scheme of delegation approved by members in December 2014:
- We support the reversion of one-way streets to two-way because one-way streets encourage speeding and are difficult to negotiate as a cyclist (and as a pedestrian);
 - We ask for left hand slip roads to be removed as they are difficult for cyclists to negotiate and result in vehicles crossing the path of straight-ahead cycles;
 - We want to see wide inside lanes and wider lane widths at junctions (and more generally);
 - We ask that junction radii are reduced to slow turning vehicles and lessen the likelihood and effects of a collision;
 - We ask for advanced cycle stop lines to assist cycles get ahead of traffic and allow them to stop in a visible location relative to other vehicles;
 - We express concern about the introduction of cycle lanes as they encourage cyclists to locate themselves too close to the kerb, contrary to cycle training advice. We explicitly wrote to TfL of our concern during the consultation on the blue-paint cycle superhighways (See Board papers 23.3.10);
 - At uncontrolled side roads we ask for entry treatments of speed tables and tighter junction radii to slow turning vehicles.

6 Transport for London's approach to cycle safety

- 6.1 Transport for London's recent approach to cycle safety is somewhat different to ours, in part because they are seeking to do two things. Firstly they want to reduce the number and impact of collisions and casualties on London's roads as we do. However, they also want to explicitly address the perception of safety issue – they want cyclists to 'feel' safe so as to encourage more cycling.
- 6.2 TfL have been tasked by the Mayor to introduce segregated cycling facilities, i.e. cycles are separated from general traffic by a kerb, plastic 'wands' or in time using signals as much as possible. Thus they are remodelling junctions as one would expect. At bus stops TfL are routing cycles through the pavement, around the back of bus stops. They are providing early start signals for cycles, signals to hold left turning vehicles and thus separate cycles from turning vehicles. There are some locations where pavement cycling is introduced, turns are being banned and cyclists encouraged to take right turns in two stages. These interventions will have some significant impacts on other travellers.
- 6.3 There are several novel innovations that are being applied. Most have been trialled in off-road conditions with volunteers. There has been an international best practice study, although the designs are different to those found in other countries. Stratford High Street was the first scheme where there is emerging evidence under real-life conditions. We do not know whether or not they will deliver overall safety benefits. There is evidence (The Road Safety Observatory Synthesis of cycle infrastructure) that such an approach may well encourage cycling, but that the results for road safety will be mixed.
- 6.4 There will clearly be a number of interacting factors that have to be balanced. It cannot yet be known what the net benefits are. Below are some of the reasons to be cautious of TfL's approach and why we are asking for the schemes to be properly evaluated, particularly Stratford High Street which now has some road safety data.

7 Our concerns with TfL's approach to improving cycle safety

7.1 Complexity

Practitioners suggest road layouts should be understandable and self-explaining. TfL's recent major cycle related road scheme proposals result in some very complex layouts. Some will even need signs to describe to cyclists how they should use them. At Cambridge Heath, for example, cyclists are advised to turn right in two stages and a sign is provided. From observation no cyclists do this as it is complex and introduces a journey time delay waiting for two phases of the traffic signals. Members will recall discussing the complexity of the design proposals for Elephant and Castle at their 15.09.14 Policy Committee meeting. At Elephant and Castle there are a whole mix of cycle specific measures and a right turn is banned for all traffic including cycles. Some cycles will almost certainly exit the carriageway onto the public square and re-enter the carriageway to turn left from New Kent Road to Elephant and Castle.



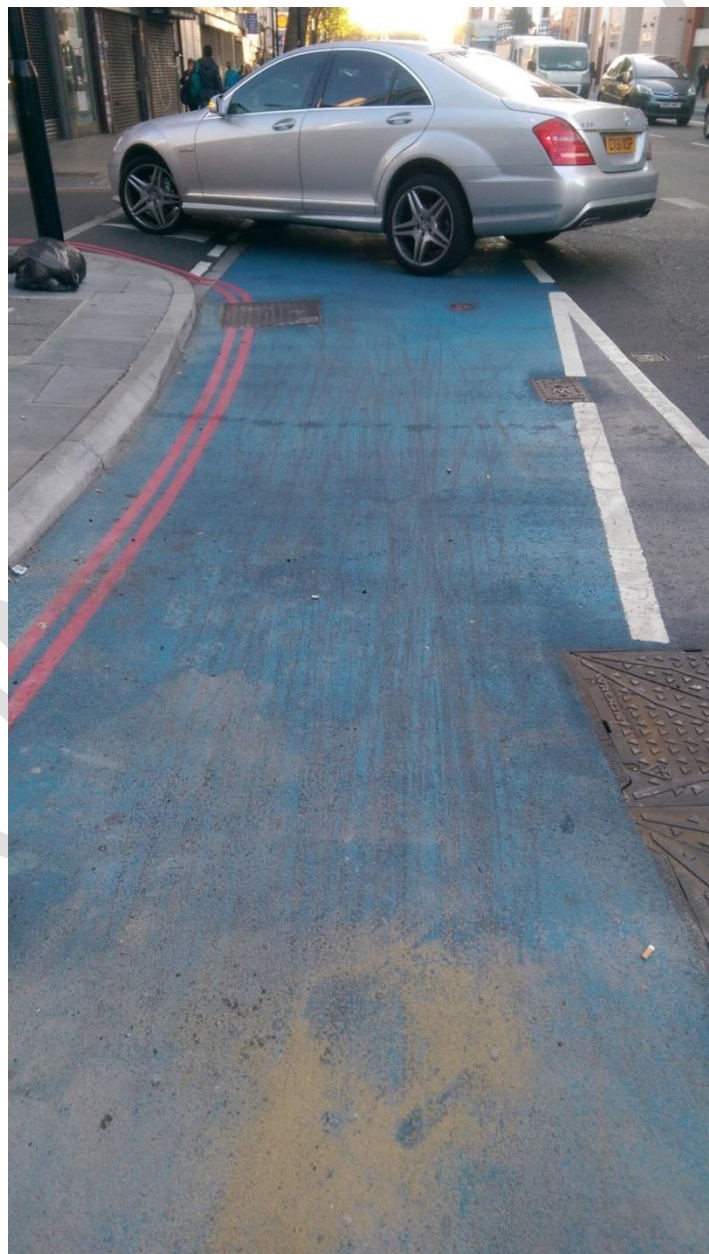
7.2 Some turns are not possible and may lead to problematic manoeuvres

At Westminster Bridge South (of the river) a proposal is presently the subject of a consultation. The turn right across Westminster Bridge Road to join York Road is the intuitive direction, but will not be allowed. Cycles need to turn right out of Lambeth Palace Road and travel the long way round to York Road. This may lead to problematic manoeuvres across Westminster Bridge Road. A sign is to be provided to direct cycles in the correct direction.

7.3 Fast cycles on the inside of left turning vehicles

A significant risk for cyclists is from left turning motor vehicles crossing the path of cycles and occasionally colliding with them. This is illustrated at Greatorex Street on Whitechapel High Street where cycle skid marks can clearly be seen that stop just short of the junction. This risk can be reduced by introducing a side road entry treatment, but that will take space from the carriageway or footway.

Another location where we have observed this issue is at the junction of Stratford High Street and Rick Roberts Way – see our YouTube Channel: TfL have sought to mitigate this issue at controlled junctions along its newest cycle superhighways by holding left turning vehicles at a signal and allowing straight-ahead cycles to proceed on a green signal. This configuration takes pavement space and is not used by all cyclists because of the additional delays for cycles using the cycle specific lane. The technique will have limited application.

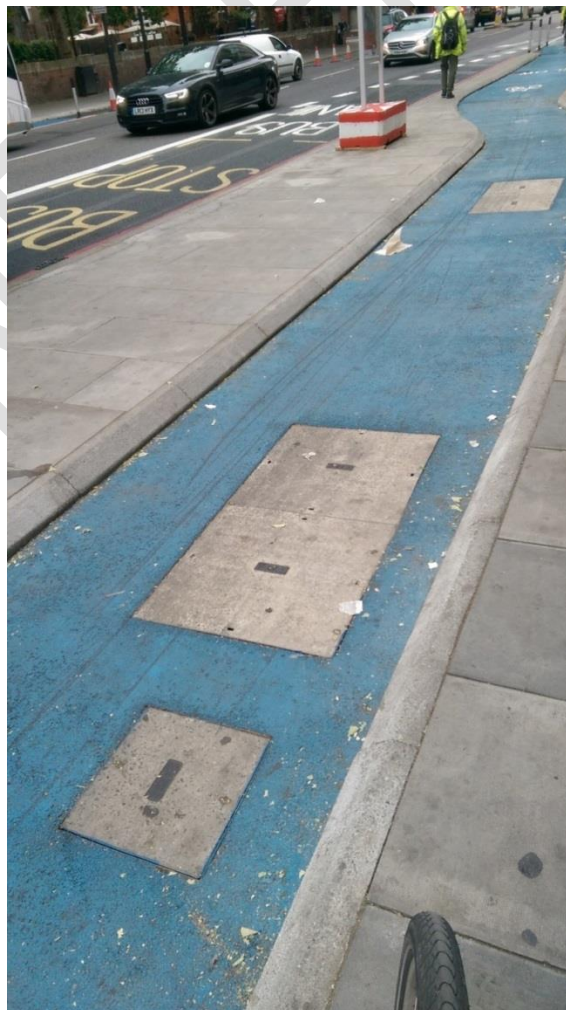


7.4 Bi-directional cycling

Bi directional cycle tracks are being widely used in TfL's newest schemes. Whilst these have the benefit of reducing the impact on loading, side streets and bus stops there is a greater risk of collision and they are not generally regarded as good practice. Both pedestrians and drivers crossing the lane may not be aware of cycles coming from the 'wrong' direction. Camden council is removing its bi-directional cycle lanes where it can for this reason. The risks can be reduced by closing side streets or reducing the volume of traffic entering and leaving the street. Where a bi-directional lane ends and connects to a conventional arrangements there will be further risks and inconvenience.

7.5 A safer feeling for cyclists may lead to pedestrians feeling less safe

The introduction of bus stop bypasses whereby cycles are routed around the back of bus stops may well lead to a feeling of safety for cycles, but this may well generate concern amongst pedestrians for their safety. TfL are proposing to trial a zebra for cycle lanes that pass behind the bus stop. At the workshops to discuss this trial representatives of visually impaired people have said that their clientele are absenting themselves from bus services because these stops are unusable for them. Observation suggests able bodied pedestrians and passengers manage to dodge the cycles which travel at high speeds, but that there are occasional near-misses and, of course, there will inevitably be some collisions. Cycle skid marks can clearly be seen at the bus stop bypass near Aldgate East Underground station. See below.



7.6 Some cyclists may not use the facilities

Cyclists will tend to take the least course of resistance and are most likely to use the facilities provided where it gives them an advantage. Whilst the designs, on paper, may look to be satisfactory, in practice they may be inconvenient and extend journey time and so not all cyclists will use the facilities provided. Some cyclists won't want to mix with pedestrians at a bus stop, particularly if they have had an unfortunate previous experience. Others will regard the additional wait for separate signals as a deterrent to use. If there is not enough width (2.5 metres+) then some cyclists will stay out of the facility as they cannot easily overtake. Leaving or entering the track if there are no breaks in the kerbing will be a problem that might lead to non-use.

7.7 Shared pavements

Shared pavements seem to be an inevitable consequence of introducing cycle tracks. This will be problematic for pedestrians, particularly vulnerable ones.

7.8 The movement of facilities such as bus stops and pedestrian refuges

A consequence of implementing cycle lanes and tracks may well be the loss or movement of various facilities, such as pedestrian refuges and bus stops where the width of the street prohibits their location where one would like them to be, i.e on pedestrian desire lines or near transport objectives. London's second most busy bus stop at the Northern line entrance at Elephant and Castle is to be moved to reduce conflicts with cycles. This will have a disbenefit for bus passengers.

7.9 A reduction in pavement width

The addition of cycle lanes and tracks can lead to the loss of pavement width. At Whitechapel High Street the pavement adjacent to a bus stop bypass is far too narrow and results in pedestrians either having an uncomfortable experience or stepping into the cycle track.

8.0 Emerging evidence - Stratford High Street

8.4 The Times newspaper has reported what it describes as the country's worst road junction in 2014 for cyclists injuries. Eight cyclists were slightly injured near to the junction of Stratford High Street and Warton Road where London's first kerb separated cycle track has been installed to improve cycle safety. There were 28 collisions (26 slight and two serious) along the stretch where the separated cycle track has been installed. Cycle numbers have doubled since 2011.

8.5 It is suggested that providing separated cycle tracks for cyclists will reduce the number of casualties on London's streets and so monitoring the statistics on this stretch of road is of interest as despite the introduction of separated cycle tracks there is a cycle safety concern at Stratford High Street. That said there is only 18 months of statistics available at present. London TravelWatch is pressing TfL to monitor this and to learn what it can.

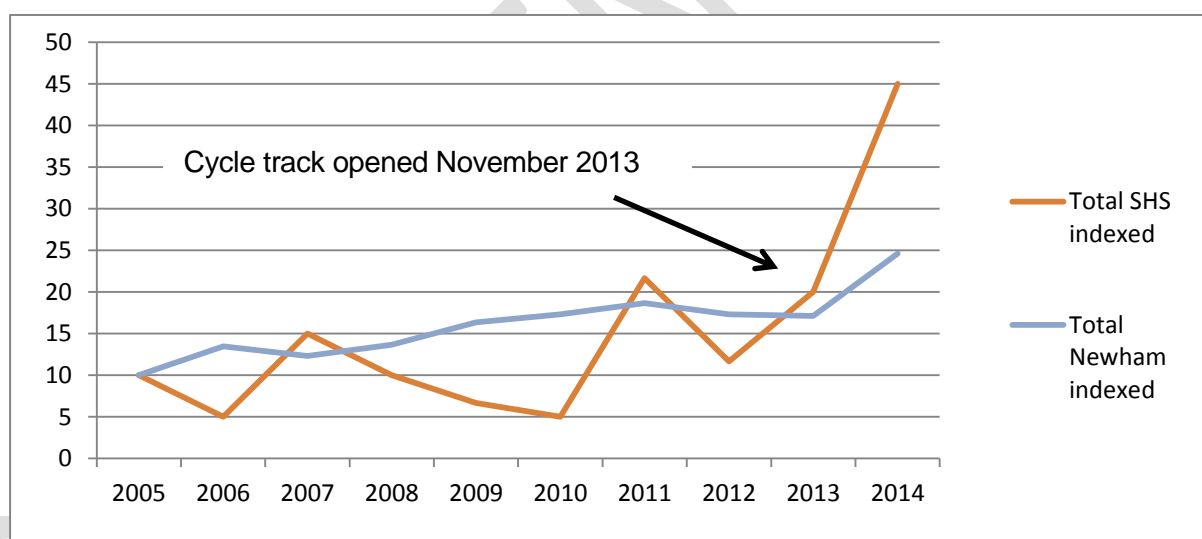
8.6 Below is a simple analysis of the number of collisions along the 1.8km of separated cycle tracks of Stratford High Street. This analysis entailed counting

the number of all cycle collisions between Bow Roundabout and The Grove mapped on Crashmap.co.uk between 2005 and 2014. This is presented along with the cycle collision history for all roads in Newham during the same time period.

- 8.7 Construction of the Cycle Superhighway at Stratford High Street started in June 2013. The provision for cyclists was opened on 7 November 2013. The figures for 2014 are the first year in which the statistics are available, post implementation. 18 months of provisional data will now have been recorded. We are told that there have been 4 collisions involving cycles in the first months of 2015. All of them causing slight injuries to the cyclists involved.

Please note: This is a relatively short stretch of road and the collisions are recorded over a short time span and so there may be no statistical significance. However, the issue is raised to encourage investigation and for members to monitor this over time

Number of collisions along Stratford High Street between Bow Roundabout and Grove Road involving a cycle casualty and the number of collisions in Newham borough generally, both indexed to 10 in 2005



9 Lorry danger

- 9.1 All parties have identified the issue of lorry danger to cyclists. Lorries are overrepresented in cycle collisions that result in fatalities, though this is not the case in serious injuries. It is apparent that the design of some lorries are not appropriate.

10 London TravelWatch Users' Priorities

- 10.1 We are recommending to all of the mayoral candidates that 'a comprehensive assessment of the positive and negative impacts of the new cycle superhighways should be carried out'. This should be conducted independently of Transport for London.

11 Equality impacts

- 10.1 Cycle safety affects both cyclists and non-cyclists in different ways. A balance has to be drawn by policy makers and designers.

12 London TravelWatch priority

- 12.1 Members have asked that the Board reviews its approach to cycle safety. Members are advised that the primary (legal) responsibility for investigating collisions lies with the local highway authorities and the Metropolitan Police Service whom are both funded to undertake this work.

13 Legal powers

- 13.1 Section 248 of the Greater London Authority Act 1999 places upon London TravelWatch (as the London Transport Users Committee) a duty to consider - and where it appears to the Committee to be desirable, to make recommendations with respect to - any matter affecting the functions of the Greater London Authority or Transport for London which relate to transport (other than of freight).

14 Financial implications

- 14.1 There is no financial implication for London TravelWatch as a result of this report.