

DRAFT

ROAD DANGER REDUCTION PLAN

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EXECUTIVE SUMMARY

Total casualties for all road users in the City are less than they were ten years ago but they are still too high and have increased over the last two years due to an increase in cyclist casualties. The main challenge facing the City is to tackle this upturn in cyclist casualties. There is also a need to address a recent increase in motorcyclist casualties and to continue to improve safety for the increasing numbers of pedestrians using the City's streets.

If nothing is done it is likely that casualties will continue to increase in connection with the anticipated future growth in the numbers of pedestrians and cyclists using the City's streets. The City's policies, such as the provision of more cycle parking, are intended to encourage more cycling and the growth in employment and improved transport links such as Crossrail will generate a significant increase in pedestrian movements. Action is therefore needed to reduce the dangers on the City's streets with a particular focus on improving conditions for vulnerable users.

The City already has an ongoing programme of initiatives which are designed to help reduce road casualties. These range from engineering measures through to comprehensive programmes of road safety education, training and publicity (ETP) and enforcement. These traditional measures have been successful in reducing casualties in the past and still have an important part to play. However most of the easy solutions have already been tried and the current surge in casualty numbers suggests that a more radical approach will be needed to bring about further improvement.

No one solution is likely to solve the problem. The City is a unique environment and solutions that work elsewhere, such as segregated routes for cyclists, may be difficult to implement in much of the City where narrow streets predominate. Shared surfaces have been shown to work elsewhere but in many parts of the City these would need to be considered carefully because of the possibility of conflict, both real and perceived, between cyclists and pedestrians.

There is some evidence that reconfiguring streets can help. For example, Cheapside was deliberately narrowed to make cars and cyclists move together at broadly the same speed. The design reduces the prospect of vehicles stopping on the carriageway; which limits the risk of vehicle doors being opened in front of cyclists. All of these are behavioural issues but they are influenced by the surrounding street environment.

This approach might be applicable elsewhere, such as Fleet Street, which experiences relatively high casualty rates, but further evidence is needed to demonstrate that such changes to the street layout can influence behaviour in a positive manner leading to a reduction in casualties.

Similarly with ETP, there is little hard evidence of the impact of specific initiatives on the number of casualties. Subject to the outcome of further research, there is in the short term a case for reviewing the balance of ETP activity to focus on areas where positive results can be demonstrated and redirecting some of this resource to deliver safety assessments of our streets.

The dispersed nature of collisions across the City and the wide range of causal factors mean that there are few obvious trends and little or no commonality between individual collisions. This militates against blanket City-wide actions with the possible exception of a 20 mph zone. A key element of the plan is therefore further data analysis and research to help identify those measures with the greatest potential for casualty reduction. In particular a fuller understanding of pedestrian and cyclist movement patterns and the impact upon these vulnerable users of new developments in the City is necessary.

The plan proposes a multi-targeted approach in which tried and tested measures such as engineering solutions, enforcement with education, training and publicity (ETP) are

continued in the short term. This will be supplemented by the use of the Road Safety Team to actively monitor safety on City streets. There will be a renewed effort to better manage our own operations on street and to influence and manage, where possible, the safe use of the highway by others. This monitoring activity and the subsequent actions will be reported to the Department of the Built Environment Senior Management Team for regular review.

In the medium and longer term; traditional road safety measures will continue to have a part to play. But, it is envisaged that achieving a significant reduction in casualties will require a more fundamental review of the operation and management of City's streets to reduce risks for vulnerable road users. In some cases engineering solutions will be the answer; schemes are in the pipeline for key junctions including Holborn Circus and Bank and the removal of gyratories such as Aldgate and Newgate Street is being investigated because of concerns about cyclist safety. It is fair to say that the easiest changes to the City's highway infrastructure have been delivered over the past 20 years. Further changes are likely to involve sub-regional and City-wide initiatives such as reduced speed limits, out-of-hours deliveries, restructured bus routes and the provision of high quality strategic walking and cycle routes combined with a corridor based approach to secure improvements at the local level. Research is needed to identify the primary users of each City street and journey corridor. Once known we need to assess how each street can be made as safe as possible with the primary users in mind. This may involve the establishment of a network of well promoted parallel routes to avoid conflicts.

A key change that appears to have potential to significantly reduce the number of casualties, and their severity, in the short term is the application of 20 MPH to all streets within the City. An important recommendation of the plan is therefore to undertake a full assessment of the costs and benefits of introducing a 20 MPH limit. Finishing the courtesy crossing programme quickly would complement a 20 MPH speed limit by providing a consistent design approach across the City that reinforces considerate behaviour and reduces speed. Evidence from within London indicates that significant reduction in casualties is delivered when courtesy crossings are introduced (source: Effect of Side Raised Entry Treatments on Road Safety in London, London Road Safety Unit, Research Summary No 9 - June 2007)

The overall approach is predicated on reducing road danger through encouraging a positive shift in road users' behaviour – i.e. making the City a more civilised and tolerant place for all users. This will be achieved by a combination of enforcement and ETP initiatives together with physical changes to the street environment to encourage driving, riding and walking behaviours that are appropriate for the City's busy streets. Behavioural factors, such as inappropriate speed, lack of concentration, impairment, intolerance of other road users and bad judgement, are the most common cause of collisions. Therefore, a key aim of the Plan is to reduce the incidence of these behaviours by education and by removing the opportunities for them to occur, and, where they continue to occur, to reduce their adverse consequences. It is envisaged that setting up an annual City Road Danger Reduction meeting at a political level with TfL would be a useful driver of improved road safety. This is considered particularly important as approximately 50% of casualties in the City are on TfL roads and they are a primary funding body for highway improvements.

The action plan focuses on a limited number of key initiatives for implementation in the short term (to December 2014), the medium term (to December 2017), and the longer term (up to 2020 and beyond). The Plan concentrates on 'big ticket' actions which have the potential to deliver significant change. It will be reviewed on an annual basis and updated as necessary to take account of progress and any changed circumstances that may arise during the Plan period.

The plan places a heavy emphasis on partnership working. In particular, delivery of the plan will depend upon a high level of cooperation with the Police regarding ETP and enforcement and with TfL as strategic transport authority and highway authority for strategic routes in the City. It is therefore proposed to work with interested partners to establish a City-wide Road Danger Reduction Partnership. It is envisaged that this partnership would meet quarterly to

oversee the delivery of the City's Road Danger Reduction Plan. Working closely together will allow sharing of data, research and expertise and ensure compliance with the Mayor of London's policies.

This plan is supported by a separate technical document which contains more detailed casualty data.

SETTING THE SCENE

Background

1. The City's previous Road Safety Plan 2007 became obsolete along with its parent plan, the City of London Local Implementation Plan (LIP) 2007, when the new LIP 2011 was approved by the Mayor of London. Although the LIP 2011 sets out high-level policy in relation to road safety, including broad-brush targets around the numbers of road traffic casualties, more needs to be done to set out the City's detailed road safety proposals.
2. The purpose of the Road Danger Reduction Plan (RDRP) is to update the City's road safety proposals and present them in a single document that will fill the policy gap left by the outdated Road Safety Plan 2007. This is supported by the Mayor of London and Transport for London who have approved the preparation of the RDRP as a key programme in the City's LIP 2011.
3. The change of title from the previous 'Road Safety Plan' to 'Road Danger Reduction Plan' is intended to reflect the Plan's emphasis on addressing road dangers at source, rather than attempting to keep vulnerable road users out of the way of that road danger through excessive segregation.
4. Too often in the past, attempting to keep vulnerable road users safe has led to inappropriate solutions such as pedestrian guard-railing and "cyclists dismount" signs that blight the streetscape, discourage people from walking and cycling and are often ignored or got around, making them ineffective at reducing danger and improving safety. It is considered that calling the new plan the City's Road Danger Reduction Plan will be an important indicator of the City's approach to reducing road traffic collisions and casualties.

About this document

5. This Plan has been prepared in the light of accident analysis and best practice. Its purpose is to reduce casualties and to fulfil the statutory duty of the City to promote road safety under the Road Traffic Act 1988. The Plan is intended to complement the Mayor of London's Road Safety Action Plan: 2020 which sets out London-wide targets and strategies for casualty reduction.
6. To be consistent with the Mayor's plan, an eight year time frame has been adopted for the RDRP extending to 2020. The proposed measures within the Plan are divided into short (up to December 2014), medium (up to December 2017) and longer term (up to 2020 and beyond) depending upon their priority, ease of implementation and likely funding resources.
7. The RDRP will be subject to regular review with annual progress reports submitted to the City's Streets & Walkways and Planning & Transportation Committees.
8. The approach to road safety in the City is being increasingly developed along the principles of 'Road Danger Reduction' which is not just about casualty reduction but

about changing attitudes to speed and the dominance of the car as an integral part of promoting cycling and walking. It involves adopting an inclusive approach to road safety that incorporates improvements to the highway layout to remove dangerous or potentially dangerous situations, education and training, maintenance and enforcement, as well as encouraging safer modes of travel and reducing conflicts between different types of road users.

9. This approach depends upon a close working relationship with other relevant bodies such as the City of London Police, schools, businesses and commercial organisations, our neighbouring boroughs, health authorities, local voluntary groups, and road user organisations.
10. The City of London supports the principles of road danger reduction which are:
 - Seek a genuine reduction in danger for all users by identifying and controlling the principal sources of threat;
 - Find new measures to define 'danger' on our roads that will more accurately monitor the use of and threat to benign modes;
 - Discourage the unnecessary use of private motorised transport where alternative benign modes or public transport are equally or more viable;
 - Pursue a transport strategy for sustainable travel based on developing efficient, integrated public transport systems. This would recognise that current levels of motor traffic should not be increased; and
 - Actively promote cycling and walking, which together pose relatively little threat to the environment or other road users by taking positive and co-ordinated action to increase the safety, priority and mobility of these benign modes.
11. The City of London Road Danger Reduction Plan seeks to achieve a genuine reduction in danger for all, to make the City's streets safer and improve the quality of life for everyone in the City. To achieve this the City of London will address road safety in a broader sense and it is committed to:
 - Promote appropriate speeds and manage traffic better, thus benefiting the environment by cutting traffic emissions and pollution as well as reducing noise.
 - Implement engineering solutions to improve safety at locations with the highest risk, including the removal of gyratories and junction remodelling;
 - Promote cycling and walking by providing traffic management solutions and road safety education and training programmes;
 - Work in partnership with the City of London Police to tackle road crime such as careless and dangerous driving and speeding;
 - Liaise closely with the City schools and their pupils, teachers and governors to provide a road safety education and training package that will instil safe road user attitudes and behaviour from an early age; and
 - Develop City road safety publicity campaigns and tailor national campaigns to reflect the City's particular needs.

12. The Plan sets out the road safety situation facing the City and reviews the City's current approach and performance against the key road casualty reduction targets. The Plan identifies areas for further investigation and recommends an approach with a focus on:
 - Improving safety through partnership working;
 - Promoting appropriate driving, riding and walking behaviour;
 - Protecting vulnerable road users, i.e., cyclists, pedestrians, powered two wheeler users and children.
13. The Plan concludes with an implementation strategy which sets out a prioritised series of short, medium and long term measures which are intended to improve road safety not only at specific hotspots but also more broadly across the City highway network.

Policy context

14. The City has a statutory duty, the Road Traffic Act 1988, to promote road safety and ensure that changes to the highway infrastructure are as safe as possible. This duty is achieved through the programme of education, training and publicity (ETP) and, through the process of design and safety auditing.
15. The City Together Strategy: The Heart of a World Class City 2008 - 2014 sets out a priority to 'encourage walking and cycling safely'. It highlights that there are 'competing interests in road usage' and that 'the number of cyclists is likely to continue to grow, which is to be encouraged'. It also states that the City should 'encourage improvements to transport safety, especially road safety'.
16. The Corporate Plan 2009 - 12 states that we provide excellent services for our community by 'working to ensure the City residents and businesses enjoy an environment which is safe and, as far as possible, free from risks to health and welfare'.
17. The Road Danger Reduction Plan is key to one of the seven programmes in the approved City of London LIP 2011. It serves, along with the other six programmes, to deliver on LIP objective LIP 2011.3, which is "To reduce road traffic dangers and casualties in the City, particularly fatal and serious casualties and casualties among vulnerable road users". The LIP contains a number of challenging casualty reduction targets which are set out in paragraphs 54-57.

Working together

18. This Plan draws on the results of collaborative working with Transport for London. Officers have been working with Transport for London and the City of London Police to analyse and understand the full extent of the current casualty trends. This activity culminated in a workshop on the 17th May 2012 that was also attended by key external stakeholders. Improving road safety within central London is now on the agenda for the Sub-Regional Transport Forum and further analysis and activity is expected to follow the recent establishment of the Mayor of London's Roads Task Force.
19. The Plan also draws on input from other stakeholders. The draft has been prepared in consultation with the City Police and has been informed by submissions and representations made to the City Corporation by interested individuals and groups over recent years.

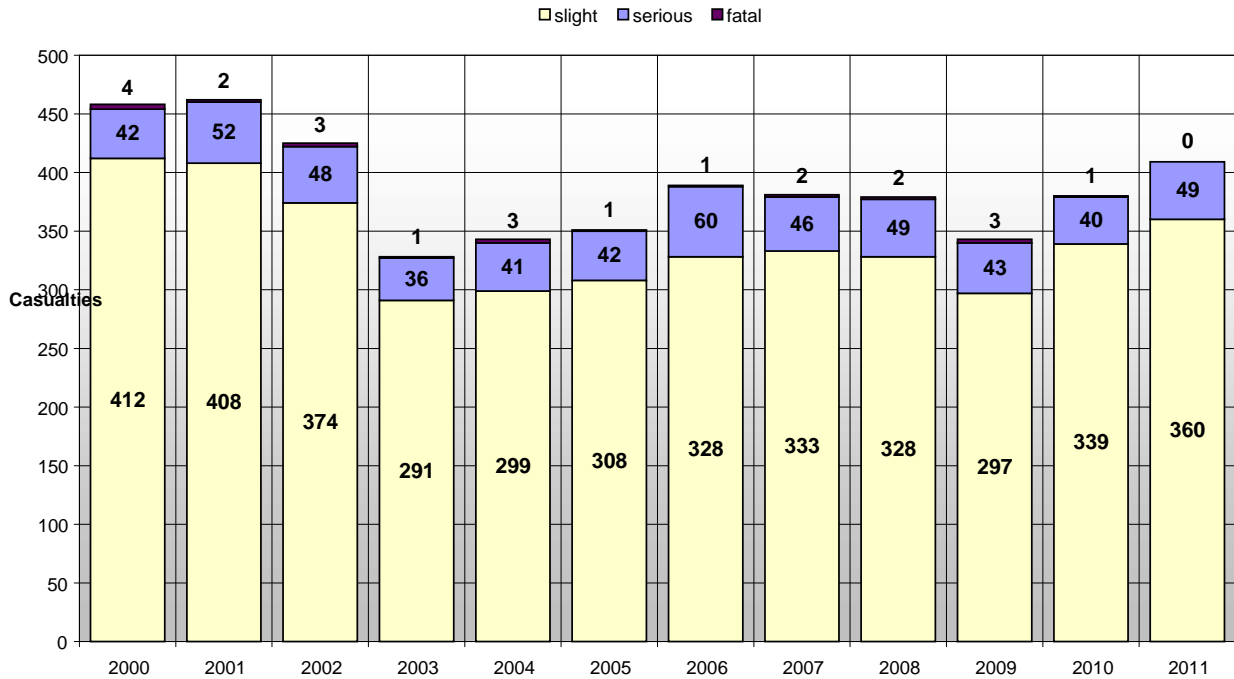
20. The Plan is intended to complement and contribute towards the achievement of the strategic road safety actions which are expected to be set out in the forthcoming Mayor of London's Road Safety Action Plan; 2020 (draft issued for consultation July 2012).
21. Implementation of many of the measures contained in this plan will require continued close partnership working with a wide variety of stakeholders including local schools, businesses and road user groups. It is proposed to facilitate partnership working by holding an annual City Road Danger Reduction meeting at a political level with TfL and establishing a City-wide Road Danger Reduction Partnership.

THE PROBLEM FACING THE CITY

Casualty trends in the City

22. Total casualties for all road users in the City are less than they were ten years ago but they are still too high and have increased over the last two years due to an increase in cyclist casualties. The main challenge facing the City is to tackle this upturn in overall casualties by improving the safety of vulnerable users (cyclists, pedestrians, and powered two-wheeler users - P2Ws) who account for the majority of casualties in the City.
23. Over 300,000 people commute into the Square Mile of the City of London every day, placing a huge demand on the public highways and on public transport. This demand results in congestion for all and contributes to an accident record that needs to be addressed. There has been a huge growth in the number of people cycling within the City. It is predicted that the number of pedestrians and cyclists will continue to grow throughout the life of this Plan because of the City's policy of encouraging more cycling and the growth in employment and improved transport links such as Crossrail which will generate a significant increase in pedestrian movements.
24. Although casualty numbers in the City are relatively small, a disproportionately high number of cyclists and pedestrians are involved in collisions compared to the Inner London Boroughs. Pedestrians make up around 26% of all of the City's casualties, compared with a 20% average for Inner London. Cyclists make up around 28% of all of the City's casualties, as against 12% for Inner London.
25. To give an overview of casualties in the City, Figure 1 illustrates the numbers over the last 11 years from 2000 to 2011.

FIGURE 1 - TOTAL CASUALTIES IN THE CITY 2000-2011



26. It can be seen that whilst the number of casualties per year has varied over time, there has been a significant recent overall increase. Total casualties in 2011 were 409 (the last full year of data). This is a rise of 7% over 2010.

27. The number of slight injuries increased to 360 in 2011. Serious casualties increased to 49 in 2011. Fatalities have remained low, with none occurring last year.

28. In 2011 vulnerable road users accounted for the vast majority of the 49 KSI casualties in the City. The relative split amongst user groups is:

Pedal cyclists	47%
Pedestrians	24%
Powered two Wheelers	27 %
Vehicle occupants	2%

29. The significant increase in casualties arises from collisions involving cyclists. However, there has been a dramatic increase in cyclist numbers in recent years.

30. The nature of the City, with its relatively narrow highways and huge daily flows of commuters, leads to a street environment that provides a recipe for collisions, especially for these vulnerable users. Street users often call for separation or segregation but the historic evolution of the City's streets means that most of the streets are not wide enough to allow segregation, nor of a regular enough width to provide a consistent design solution.

31. The streets managed by Transport for London are generally wider and could deliver segregation and more consistent infrastructure. Transport for London are responsible for 10% of the streets within the City. However, these streets carry approximately 50% of the traffic and account for approximately 50% of the casualties. An analysis shows that the number of KSI casualties is shared equally between the City's and TfL's streets. Pedestrian casualties occur more on the City's streets. Cyclist casualties are

shared equally. Powered two wheeler casualties occur more on TfL's streets. It is clear that both Highway Authorities have a significant role to play in reducing casualties within the City of London but that the emphasis for each may be slightly different. Transport for London have a second key role to play in exercising their powers under the Traffic Management Act in such a way that they allow their own organisation and the City to introduce those changes to the highway that are able to deliver significant safety benefits.

32. The Road Danger Reduction Plan sets out targets and actions to address the City's road safety issues and to meet the requirements under the Mayor's Transport Strategy. Put very simply, if we are to meet the Mayor's targets by 2020 the annual number of casualties within the City needs to be reduced by 150 and the KSI casualties need to reduce by 25 from the 2011 situation.

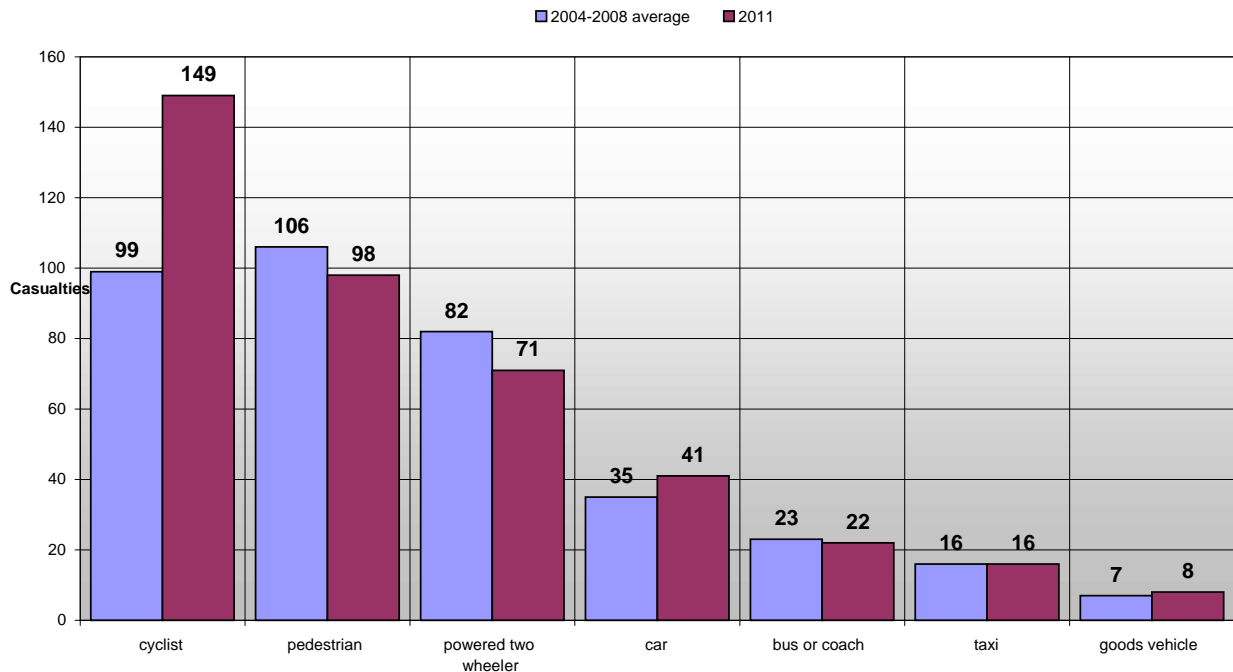
Why we need to reduce casualties

33. Road deaths and injury have a devastating impact on the people directly involved, as well as their families, the wider community and society. It is imperative that the road safety community takes action to reduce the number of casualties.
34. Collisions also have a serious detrimental impact on the economy in terms of lost output, medical and ambulance costs, human costs, police costs, insurance and property damage. They also have a major detrimental impact on traffic flow: increasing congestion, reducing capacity, lengthening journey times, worsening journey time reliability and affecting the resilience of the City's road network
35. Making roads safer can yield other benefits. More people may be encouraged to walk and cycle if they perceive these ways of travelling to be safe, bringing environmental and health benefits.
36. The trend of increasing cycling casualties will, if unabated, result in the City not achieving casualty reduction targets. The key target, for London and nationally, is the reduction of casualties where people are killed or seriously injured (KSI). Within London, the vulnerable user groups of pedestrians, cyclists and powered two wheel riders comprise 76% of the KSI total; which is high by national standards. Within the City, the percentage is even higher. 98% of those killed or seriously injured in 2011 were vulnerable users.
37. The casualty situation within the City is unique. Activity over the last decade has made the streets safer for most users. However, the need to make the streets much safer for all means that there is a need to do something different and significant if the target reduction in casualties is to be met.

Casualties by user groups

38. Figure 2 shows the 2011 casualty numbers for the various categories of user; compared to the 2004 – 2008 average figures which form the base line for the LIP casualty reduction targets.

FIGURE 2 - TYPES OF CASUALTIES: 2004-2008 AVERAGE AND 2011



39. All casualties to cyclists increased in 2011 to 149. This shows a significant rise when compared to the 2004/8 average of 99. It is evident that the growth in casualty numbers is due to the growth of cycling and the consequential increase in collisions involving cyclists. The rate of increase in cyclist casualties is therefore approximately the same as the increase in the number of cyclists which increased from 15,000 per day in 2005 to 24000 in 2010.
40. All casualty rates for other user groups have declined with the exception of marginal increases in the car and goods vehicle categories though there has been an increase in P2W KSIs (see paragraph 50).
41. The main challenge facing the City is therefore to tackle the upturn in cyclist casualties whilst maintaining the downward trend in other casualties, particularly pedestrians and powered two wheeler users which still account for a disproportionate number of casualties.

Cyclists

42. Cyclist casualties in the City have been increasing since 2007. This figure continues to increase and in 2011 there were 23 KSI casualties. Looking at the proportion and types of traffic involved in accidents; cyclists, who make up only 9% of the total traffic composition, comprise 28% of all the casualties and 47% of KSIs, a disproportionately high figure.
43. Research undertaken by the City and TfL has identified the following key issues:
- There has been an increase in casualties, reflecting the growth in levels of cycling.
 - Initial findings from TfL analysis of the Mayor's Cycle Hire scheme (CHS) indicates that the rate of collisions is far lower amongst CHS users compared with cyclists in general.

- The number of casualties reflects AM and PM peaks suggesting traffic volumes are a factor. There is a further evening peak in casualties.
- Taxis and goods vehicles are disproportionately represented in collision data.
- The largest increase in casualties has been seen on City-managed roads.
- 84% of casualties are involved in collisions at intersections or junctions. This is in line with the Greater London average.
- Collisions are more likely to occur in the middle of junctions rather than on their approaches.
- Failure to see a cyclist appears to be a significant causal factor.
- The main contributory factors identified in cyclist casualties are “turning right”, “changing lanes”, “opening vehicle doors” and “undertaking of large vehicles turning left across cyclists path”. The last factor being the most significant in KSI casualties.

Pedestrians

44. Data on pedestrian numbers and movements in the City is patchy and further research is urgently needed to provide a definitive picture of current and future levels of pedestrian activity across the City. It is known, however, from anecdotal evidence and studies of certain hotspots such as Liverpool Street Station that many footways are already at or over capacity at peak times with resultant implications for road safety.
45. The City’s daytime population is expected to increase from 340,000 people in 2011 to 423,000 people in 2021 due to increased employment opportunities and improved transport links such as Crossrail. The LIP target is to increase the number of pedestrians by 10% by October 2013. This level of increase will require a significant improvement in pedestrian facilities to ensure a safe and pleasant walking environment.
46. Pedestrian casualties in the City have presented a mixed picture with numbers fluctuating. However, 2011 saw a reduction to 12 KSI casualties.
47. There is no evidence to suggest that total (or KSI) pedestrian casualties have increased over the last 10 years. However, the challenge will be to secure further reductions in the number of casualties in the face of increased numbers of pedestrians.
48. Data analysis shows the following key findings:
 - A decline in casualties until 2003-04, followed by a fluctuating pattern .
 - There may be a proportionately greater risk for pedestrians on the TLRN, although further research is required to explore this.
 - The City experiences considerable over-crowding of footways, particularly at peak times, with pedestrians stepping onto the carriageway.
 - There appears to be clusters of casualties in the immediate area surrounding main stations.
 - Goods vehicles, coaches and buses are disproportionately involved in collisions.

- A high number of cyclists are involved in collisions, which if tackled, could reduce pedestrian and cyclist casualty rates in the City.
- Pedestrians are more often a casualty when first stepping off the footway and evidently fail to look properly.
- There appears to be a disproportionate number of collisions between pedestrians and buses/coaches and P2Ws which requires further analysis.
- “Pedestrian inattention” has been identified as the main contributory factor for pedestrian casualties.

Powered two-wheeler users

49. There were 13 KSI motorcyclist casualties in 2011, the highest figure since prior to 2001, and after a steady reduction to two in 2010. So far there have been five motorcyclists seriously injured in 2012. As 72 per cent of motorcyclists were injured due to the actions of other road users, a significant reduction in motorcyclist casualties will only be achieved by addressing the behaviour of other road users, particularly car, taxi, and goods vehicle drivers and by increasing motorcyclists’ awareness of other road users. The most common causes of a motorcyclist being injured are pedestrian lack of attention, motor vehicles turning right across their path, and vehicles U turning.

Children

50. The City has a very low child population and only five schools. The number of child casualties is low. Three children were slightly injured in 2011 and three in 2010. There were no fatalities
51. The Road Safety Team has provided a comprehensive programme of road safety education in the City’s schools in accordance with the City’s statutory duty to promote road safety. This is very well received by the participating schools and assists with ensuring that casualties remain at a low level.

Other road users

52. In 2011 vehicle occupants accounted for only 2% of KSI casualties in the City. Because the numbers involved are so small and geographically dispersed it is difficult to devise effective remedial measures to specifically address these casualties. Given the need to make best use of limited resources the focus of the RDRP is necessarily directed towards the much higher level of casualties amongst vulnerable road users. That said, many of the measures within the Plan will also benefit vehicle occupants by providing a generally safer environment for all road users and encouraging driving, riding and walking behaviours which reduce the risk of collisions.

OUR CURRENT APPROACH

53. The City’s approach to date has encompassed targets, engineering solutions, ETP, enforcement, highways management, research and data analysis. In overall terms these initiatives have contributed to a general reduction in casualties over the last ten years, apart from the recent increase in cycling casualties. However, whilst the overall programme can be considered successful it is not possible to identify which initiatives have delivered the biggest benefits in terms of casualty reduction because of the difficulty in gathering accurate evidence of the impact of many of the measures. In the future greater emphasis will be given to project evaluation wherever practicable and it will be important to quantify the relative contribution of individual measures so that resources can be directed towards those measures that will be most effective in reducing casualties.

Targets

54. A key tool in the City's efforts to reduce casualties has been the adoption of highly challenging targets in order to drive forward action and assist in monitoring progress.
55. The current LIP 2011 has targets to reduce casualties over time. The 2013 target is to reduce the number of persons killed or seriously injured in road traffic collisions to a three-year rolling average of 39.1 casualties per annum. This represents a reduction of 20.9% from the 2004–2008 average of 49.4 casualties per annum.
56. The 2013 target for the total number of persons injured in road traffic collisions is a reduction to a three-year rolling average of 322.5 casualties per annum by 2013. This represents a reduction of 12.5% from the 2004–2008 average of 368.6 casualties per annum.
57. The long term target is to reduce the number of persons killed or seriously injured to a three year rolling average of 24.7 by 2020 and to reduce the total number of persons injured to a three year rolling average of 258 by 2020.

Engineering solutions

58. Over the last 10 years, the traffic management regime within the City has remained relatively stable but gradual changes have been introduced to address specific road safety issues. The introduction of the Western Traffic and Environment Zone and Congestion Charging, both in 2003, reduced traffic levels in the City and allowed some reallocation of road capacity to improve conditions for pedestrians and cyclists. Functional safety orientated changes have been made to streets like Ludgate Hill, junctions like London Wall/Moorgate and at the gyratory system by Mansion House Tube Station which was removed in 2010. City-wide action programmes such as the removal of guardrailling and introducing two way cycling on one way streets have also taken place. The two way cycling programme is still active and further streets will be changed. Monitoring confirms no reported casualties as a result of these programmes.
59. Many of the changes to the highway infrastructure have been driven by funding from developments, often branded as environmental enhancement projects, but which also seek to address road safety as an important consideration. During the early part of the last decade, this activity took place on the local access streets; which have always been relatively safe. During recent years, major environmental enhancement has taken place on more major streets such as Cheapside and St Paul's Churchyard.
60. As over recent years, there are currently a number of active major schemes which seek to improve road safety at key casualty locations, with a particular focus on major junctions, corridors and the remaining two City gyratories because of concerns about cyclist safety:
 - Strategy consultation is on-going for Bank Junction.
 - Holborn Circus is being prepared for implementation in 2012/13
 - A strategy is being initiated to deal with the key corridor of Fleet Street and Ludgate Hill.
 - TfL officers are reviewing their whole highway network and every Cycle Super Highway to ensure that they are as safe for cyclists as they can be. The programme will encompass some 500 junctions throughout London; including the City
 - TfL and the City are working on a project for Bishopsgate, which accounts for 10% of all casualties in the City.

- The removal of Aldgate gyratory is a key element of the Aldgate Area Strategy.
- A study into the feasibility of removing the Newgate Street gyratory will be undertaken in 2013/14.

Enforcement and ETP

61. Extensive, respected and award winning programmes of enforcement, education, training and publicity have been delivered over the last five years. Much of this activity has been copied and used by Transport for London and the Metropolitan Police throughout central London.
62. The Road Safety Team has expanded their activity and delivers a full and demanding programme to the highest standards. All campaigns and activity have been delivered in accordance with the previous Road Safety Plan. The messaging and deployment of their resources is driven by data analysis covering a period of several years. The core activity has been to focus on pedestrian and cyclist campaigns.
63. Their current focus has been on education and publicity activity. Through this activity, the team has engaged with school children, residents, businesses and workers, drivers, cyclists and pedestrians. During the Olympic and Paralympic period, activity was focussed exclusively on tourist and cyclist safety. Much of this activity is delivered jointly with the Police.
64. The team analyses causative data and shapes their programmes accordingly. This is an ongoing process and 2011 data will be used to shape the 2013/14 programme.
65. Typically, the Police and the Road Safety Team work on joint activity for one day a week. For example, within May 2012, the Police conducted five different operations. Four of these focussed on public safety with one (Atrium) in particular focussing on reducing fatalities and serious injury collisions involving cyclists. Over 200 fixed penalty notices were issued and over 100 people attended the road show as a result and had their notice cancelled.
66. The Road Safety Team and the City of London Police have enjoyed very good joint operational working for many years. Senior managers are now building upon this work and improving the sharing of data and strategy development. Regular meetings are now being held with the Police to drive the casualty reduction programme.

Highways management

67. There are always considerable amounts of utility and building site activity in the City of London which, if not properly managed, can increase risks for road users. Over 20 utilities have active plant under the highway, and around 5,000 individual excavations are permitted to take place each year to install, repair or replace that equipment.
68. The City undertakes regular monitoring of all streetworks under by the New Roads and Street Works Act 1981, and officers report defects to the responsible utility company for them to remedy. Defects reported to the City by the public or the police are also investigated and then passed to the appropriate utility for appropriate action. If deemed to be dangerous, the City can require the utility to make safe any defect in signing, lighting and guarding without delay. Having said this the importance of well managed street works is such that a further review is proposed to ensure all is being done to make sure street works do not unnecessarily add to road danger.
69. In addition there are typically over 50 major long-term building sites located in the City during the course of any one year. Building site activity is typically regulated by British Standards, Euro Codes and various pieces of national and European legislation, but in

addition, building sites are provided with well-established guidance on the standards the City expects to be delivered in terms of scaffolds, hoardings, lighting, cranes, road closures and street cleanliness. This is in order to ensure that important development activity can still take place whilst maintaining a safe environment for the many thousands of people who use our streets every day. Licences and permissions granted by the City for various site activities are typically based on this guidance, with the primary considerations being those of safety and reasonableness.

70. The City also has its own Considerate Contractor Scheme for utilities, contractors and building sites which is now in its 25th year. The scheme is intended to promote care and consideration by contractors in terms of their public-facing activities, and we believe it has played an essential part in keeping the City a safer and more pleasant place to live and work. It is now proposed to review this scheme and our inspection protocols to see if more can be done to improve road safety.
71. Cleanliness and street cleansing operations are another consideration in delivering a safe street environment. A recent example of the City's pro-active approach towards improving the highway environment is the ban on putting out bagged waste for collection during the working day. This has contributed to danger reduction by reducing obstruction of the footway and reducing the need for pedestrians to walk in the carriageway and moving waste collection traffic away from peak travel times.

Research and data analysis

72. To address collision problems on the City's streets an understanding is needed of which road users are involved, where collisions are happening, the timing of casualties and what factors are causing or contributing to collisions. With this understanding, interventions can be selected which are most likely to address the casualty problem.
73. The Accident Statistics Casualty Database (ACCSTATS) is compiled by the London Road Safety Unit within Transport for London from police collision reports. There are some gaps in the data collected but these statistics still provide a significant amount of information about the reasons why collisions occurred and the contributory factors leading to them.
74. The City Police use these statistics to produce a monthly Collision and Casualty Intelligence Report which includes a detailed analysis of the causes of collisions and is used in planning future education and enforcement initiatives.
75. Studies have also been undertaken by the City and TfL to provide a greater understanding of the causes of collisions, particularly those involving pedestrians and cyclists.
76. In 2009 Steer Davies and Gleave completed a study for the City which included a detailed analysis of the causation factors of collisions resulting in injuries to cyclists and pedestrians.
77. A joint City/TfL Road Safety Study was undertaken in 2012 which sought to analyse and explain current trends, patterns and causes of collisions and casualties in the City. This included research into casualty and collision trends in Greater London and the City of London; with a particular focus on causation factors.
78. TfL has also commissioned two reports from the Transport Research Laboratory (TRL) which analyse Metropolitan and City Police collision files for pedal cyclist and pedestrian fatalities in London and provide a more detailed insight into causation factors. The reports also put forward possible interventions that might have reduced the number or severity of casualties.

79. The results of these studies have been taken into account in preparing this plan and the key findings are summarised in the separate supporting technical document. One of the key actions in this Plan is to continue to use the resources available to the Police, TfL and the experts at the Transport Research Laboratory to regularly monitor collisions and casualties in the City with a particular focus on causation factors.

WHAT ELSE IS NEEDED?

Review of current situation

80. The City has already implemented many of the easier and more obvious measures to improve road safety but casualties are still occurring. In line with the City's policy of encouraging sustainable forms of travel, a huge and increasing number of cyclists are now using the City's streets. This has been accompanied by an increase in the number of cyclist casualties. There is little discernable change in the number of casualties for any of the other user groups except for a recent upturn in P2W KSIs. Pedestrian KSIs appear to show a trend of improvement which needs to be maintained.
81. The task is now to reverse the increase in cyclist and P2W casualties and to maintain the improvement in the casualty rates for other road users.
82. The activity set out in the previous Road Safety Plan had a heavy slant on enforcement and education, training and publicity (ETP) and a focus on improving major junctions, in the expectation that this would enable the casualty reduction targets to be met. This has not proven to be the case and additional actions have therefore been included in this plan to develop a more effective strategy. We still believe there is a place for ETP and work to improve junctions but this will be supplemented by other measures such as corridor studies, the removal of gyratories and improved management of the City's streets.
83. Devising a cost-effective action plan that will deliver tangible results in a realistic timescale needs to take account of several key factors:
- There is a lack of detailed data on the causes of many collisions making it difficult to devise appropriate remedial measures with confidence of the outcome;
 - There is a lack of evidence as to the effectiveness of many of the traditional ETP measures for addressing road safety problems;
 - By their very nature, there is a lack of evidence that innovative measures will deliver desired outcomes;
 - Although there are some concentrations of casualties, many are dispersed across the City meaning that targeting action at specific locations will only address a small proportion of potential future casualties.
 - Many potential measures such as revised highway layouts or radical strategies to restrict certain classes of vehicle in certain areas are likely to have long lead-in times to allow for planning, design, consultation, approval and funding.
 - Limited funding and staff resources will affect the pace of delivery.
 - Approximately 50% of casualties occur on the TLRN for which TfL is the highway authority rather than the City.
 - EU and national Government initiatives to deliver innovative solutions such as advanced emergency braking systems and improved vehicle designs are likely to have a minimal impact on casualty rates in the short to medium term. This means

that the City must continue to rely largely on its own local initiatives to deliver casualty reductions.

84. The City already has an ongoing programme of initiatives which are designed to help reduce road casualties. These range from engineering measures through to comprehensive programmes of road safety education, training and publicity (ETP) and enforcement. These traditional measures have been successful in reducing casualties in the past and still have a part to play. However most of the easy solutions have already been tried and the current surge in casualty numbers suggests that a more radical approach will be needed to effect further improvement.
85. No one solution is likely to solve the problem. The dispersed nature of collisions across the City and the wide range of causal factors mean that there are few obvious trends and little or no commonality between individual collisions. This militates against blanket City-wide actions with the possible exception of a 20 mph zone.
86. The City Corporation and City Police analyse casualty data on a regular basis to identify trends and assist in developing remedial measures. The City has also undertaken various studies to help identify the effectiveness of various measures as tools for reducing casualties such as the impact of courtesy crossings. However, the City is a unique environment and solutions that work elsewhere, such as segregated routes for cyclists, may be difficult to implement in much of the City where narrow streets predominate. Shared surfaces have been shown to work elsewhere but in many parts of the City these would need to be considered carefully because of the possibility of conflict, both real and perceived, between cyclists and pedestrians.
87. There is some evidence that reconfiguring streets can help. For example, Cheapside was deliberately narrowed to make cars and cyclists move together at broadly the same speed. The design reduces the prospect of vehicles stopping on the carriageway; which limits the risk of vehicle doors being opened in front of cyclists. All of these are behavioural issues but they are influenced by the surrounding street environment
88. This approach might be applicable elsewhere, such as Fleet Street, but further evidence is needed to demonstrate that such changes to the street layout can influence behaviour in a positive manner leading to a reduction in casualties.
89. Similarly with ETP, there is little hard evidence of the impact of specific initiatives on the number of casualties. There is therefore a case for reviewing the balance of ETP activity to focus on areas where positive results can be demonstrated.
90. A key element of the plan is therefore further data analysis and research to help identify those measures with the greatest potential for casualty reduction. Some work is already underway, as follows:

Existing research

91. The City has recently completed an assessment of the effectiveness of courtesy crossings which has shown that such measures can have a beneficial impact on driver behaviour. Evidence from within London indicates that significant reduction in casualties is delivered when courtesy crossings are introduced (source: Effect of Side Raised Entry Treatments on Road Safety in London, London Road Safety Unit, Research Summary No 9 - June 2007)
92. A study of pedestrian activity at Bank junction has demonstrated the determination of pedestrians to walk along desire lines. This provides a powerful indication that pedestrians will be reluctant to use facilities that require deviation from their preferred routes and suggests that innovative solutions will be required such as the diagonal crossings recently installed at Oxford Circus.

93. A study is to be undertaken in 2013 to assess whether the Cheapside improvements have delivered the anticipated reduction in traffic speeds, improved road safety, improved cycling facilities and improved environment as set out in the initial scheme objectives. This will provide valuable lessons for the design of future corridor improvement schemes.
94. A campaign is to be undertaken in 2013 to encourage better positioning of pedal cycles and motor vehicles on the carriageway in Cheapside.
95. Stage 3 safety audits are routinely undertaken on the completion of highway schemes but more needs to be done to harness the results and to share learning about the impact of highway infrastructure changes on road safety.

Areas to be explored

96. Other key questions that need to be addressed are set out below and a forward research programme is included in paragraph 108;
 - Research is needed to identify the primary users of each City street and journey corridor. Once known we need to assess how each street can be made as safe as possible with the primary users in mind. This may involve the establishment of a network of well promoted parallel routes to avoid conflicts..
 - In many parts of the City there is a level of footway crowding that encourages walking in the road. Is it possible to resolve the problem of pedestrian inattention or is it necessary to focus more on wider footways to avoid people casually stepping into the carriageway due to congested footways?
 - What percentage of collisions in the City involve a vehicle travelling over 20 mph?
 - To what degree do dedicated cycle lanes reduce casualties?
 - Does the shared space concept deliver significant safety benefits in the City context?
 - What is the relative value of painted cycle lanes versus physical separation measures?
 - Can ACCSTATS data be made more helpful – could we capture more?
 - In view of current casualty rates, should cyclists have priority over other road users?
 - What is the nature of pedestrian activity in the City and how will it intensify with future employment growth and the opening of major transport infrastructure such as Crossrail and the upgrade of bank station?
 - What are the road safety benefits of peak time priority routes for pedestrians and cyclists?

A way forward

97. Although there are shortcomings of existing data and many unanswered questions this does not mean that we can afford to stop work and await the results of further research. The way forward must involve a mix of continuing doing things and collecting more evidence to help target actions as effectively as possible in the future.
98. Sharpening the focus of future interventions will depend upon being able to predict more accurately where, when and why casualties occur and having better evidence of the relative effectiveness of potential remedial measures. This will require improved

data collection and forecasting tools with a specific focus on vulnerable road users. A particular requirement is for a pedestrian model of the City to allow the modelling of future pedestrian activity and assist with targeting road danger reduction measures at pedestrian hotspots.

A NEW APPROACH

Recommended approach

99. In view of these factors, a multi-targeted approach is recommended in which tried and tested measures such as engineering solutions, enforcement and ETP are continued in the short term. This will be supplemented by the use of the Road Safety Team to actively monitor safety on streets within the City. There will be a renewed effort to better manage our own operations on street and to influence and manage, where possible, the safe use of the highway by others. This will include a safety training programme targeted at the drivers of City contract vehicles. This monitoring activity and the subsequent actions will be reported to the Department of the Built Environment Senior Management Team for regular review.
100. It is proposed to reduce the ETP programme by 20% and to redeploy the saved resources on safety audits of key cycle corridors and junctions with high levels of casualties. Successful training and enforcement programmes would continue but would be more sharply focussed on high casualty users and locations. The implementation of engineering measures would continue where evidence of effectiveness already exists. In parallel, further research would be undertaken into causation factors and the effectiveness of alternative measures and strategies with a view to devising a more radical agenda for the medium and longer term.
101. In the medium and longer term traditional road safety measures will continue to have a part to play but it is envisaged that achieving a significant reduction in casualties will require a more fundamental review of the operation and management of City's streets to reduce risks for vulnerable road users. This is likely to involve sub-regional and City-wide initiatives such as reduced speed limits, out-of-hours deliveries, restructured bus routes and the provision of high quality strategic walking and cycle routes combined with a corridor based approach to secure improvements at the local level. A key change that appears to have potential to reduce casualties and their severity in the short term is the application of 20 MPH to all streets within the City. A study of the benefits and weaknesses of such an approach is therefore proposed as part of the forward research programme.
102. The overall approach is predicated on reducing road danger through encouraging a positive shift in road users' behaviour – i.e. making the City a more civilised and tolerant place for all users. This will be achieved by a combination of enforcement and ETP initiatives together with physical changes to the street environment to encourage driving, riding and walking behaviours that are appropriate for the City's busy streets. Behavioural factors, such as inappropriate speed, lack of concentration, impairment, intolerance of other road users and bad judgement, are the most common cause of collisions. Therefore, a key aim of the Plan is to reduce the incidence of these behaviours and, where they continue to occur, to reduce their adverse consequences.
103. It is not realistic to expect engineering solutions to eradicate casualties by themselves. Analysis of collision data, particularly the location data, shows that most accidents do not occur at particular major junctions, nor do they appear to be associated with any particular street configuration. Therefore, whilst work to improve junctions needs to continue this will not provide the step change in reducing cyclist and other casualties that is needed.

104. All this points to the need to look at the nature of particular streets and to devise bespoke measures to suit local conditions. For example, Cheapside was deliberately narrowed to make cars and cyclists move together at broadly the same speed. The design reduces the prospect of vehicles stopping on the carriageway; which limits the risk of vehicle doors being opened in front of cyclists. All of these are behavioural issues but they are influenced by the surrounding street environment. This adds weight to the corridor based approach.
105. There may also be a case for introducing specific measures at peak times when there is a definite spike in the number of collisions and casualties. Enforcement and ETP activity is already targeted at these times but further measures such as restrictions on the use of certain streets by certain classes of vehicle at peak times warrant consideration. This could potentially provide greater priority and safety by reducing some of the conflicts which increase the risk of collisions.
106. Achieving the City's casualty targets will be heavily dependent upon reducing casualties on the TLRN. A key element of City's approach will therefore be to continue to lobby and encourage TfL to address problem locations on the TLRN and, as far as resources allow, to work in partnership with TfL to develop and deliver appropriate solutions. The main focus of the City's own efforts and investment will inevitably be directed to those streets for which the City is the highway authority but the City's enforcement and ETP initiatives will also benefit users of the TLRN.
107. More research will be required to fully understand the reasons behind the conflicts, particularly for cyclists, and make sound recommendations as to the best interventions required to reduce collisions and casualties. There is also a need to improve understanding of the level of existing and likely future pedestrian activity in the City as significantly increased footway congestion is a real possibility with potentially significant safety implications. The action plan therefore includes the following as high priority areas for further investigation:
- Improved causation data collection and analysis.
 - Engagement with TfL's junction review programme.
 - Examination of the road safety benefits of a City-wide 20 mph zone
 - Examination of the road safety benefits of peak time priority routes for pedestrians and cyclists
 - Development of a pedestrian database and model to allow forecasting of future pedestrian activity and the testing of potential improvement measures such as pedestrianisation schemes and wider footways.
108. The delivery of change will almost certainly require an even more effective working partnership; involving the City, the Police, Transport for London and the campaign/user groups. It is therefore proposed to establish a City-wide Road Danger Reduction Partnership which it is envisaged will meet quarterly to oversee the delivery of this plan. Furthermore it is proposed that an annual review meeting is established at a political level with TfL given their important role in supporting casualty reduction generally and on their network within the City in particular.

Priorities and timescale

109. The action plan focuses on a limited number of key initiatives for implementation in the short term (to December 2014), the medium term (to December 2017), and the longer term (up to 2020 and beyond). The action plan concentrates on 'big ticket' actions

which have the potential to deliver significant change. It will be reviewed on an annual basis and updated as necessary to take account of progress and any changed circumstances that may arise during the Plan period.

Short term (to December 2014)

110. The lead-in times for designing and securing approvals and funding for engineering measures are such that there is little scope for implementing major new schemes in the short term, other than those which have already been approved such as Holborn Circus. The number of casualties means that there is an urgent need for action but we need to avoid simply implementing hastily devised measures which may not deliver the desired casualty reductions.
111. It is recommended therefore that the short term focus should be on measures that have the potential to encourage City-wide behaviour change and thereby reduce the incidence and impacts of collisions. Because of the dispersed nature of collisions across the City, the biggest potential benefit will be achieved from measures that can be applied on a City-wide basis. These will need to be measures that can be introduced with a minimum of delay so as to tackle the rising cycle casualty problem as soon as possible.
112. The key action is the completion of the 20 mph speed limit investigation which has already been approved by Members.
113. The approved LIP 2011 includes a proposal for the 'Investigation of the benefits and disbenefits of a 20 mph speed limit or a 20 mph zone across the City, preferably including the Transport for London road network'. This investigation is due to be completed by late summer 2013 and will provide a thorough assessment of the implications of introducing such a measure in terms of road safety, environmental, traffic and other relevant factors. Depending upon the outcome of the investigations it would be possible to introduce such a 20 mph limit or zone during 2014 subject to funding.
114. Continued enforcement and ETP activity will also be an important means of encouraging behaviour change and it is recommended that where possible additional resources be devoted to allow the development of new harder-hitting campaigns, the deployment of road safety marshals at main stations and the provision of cycle awareness training for commercial vehicle, taxi and private hire drivers.
115. A large part of the short term programme will be devoted to the investigation and development of measures for implementation in the medium and longer term. This will include working with the City Police to improve the coverage and quality of ACCSTATS data to allow for a better understanding of the causes of collisions and participation in TfL's junction review programme. Reducing road danger will also be integral part of the City's Area Strategies which will be completed during 2013 and will contain proposals for implementation in the medium and longer term.
116. The short term will see the continuation of various approved road safety programmes including the near-universal provision of advanced stop lines (ASLs) for cyclists and the expansion of two-way working for cyclists.
117. There will also be an increased focus on devising appropriate highway management measures to ameliorate the potential risks associated with road works, temporary utility reinstatements and construction projects. This will include a review of the City's Considerate Contractor scheme to encourage the adoption of safe driving techniques and appropriate vehicle safety devices.

118. There will be a continuing need for engagement with TfL to secure improvements on the TLRN and to lobby for the optimisation of signal timings throughout the City of London to improve road safety.
119. In order to drive forward the desired reduction in casualties, it is recommended that an annual Member-level City Road Danger Reduction meeting be held that would include representatives from the City (Planning & Transportation and Police Committees) and TfL. The role of the meeting would be to monitor and challenge progress, foster partnership working and to keep the RDRP under review and updated as necessary. It is anticipated that officers from the City, the City Police and TfL would report on activity and outcomes for the preceding 12 months and submit a programme of action for the next 12 months. It is also proposed that this Plan would be monitored by an officer led City-wide Road Danger Reduction Partnership including the City Corporation, the City of London Police, TfL and other interested parties.

Medium term (up to December 2018)

120. The main challenge in the medium term is likely to be ensuring safety for an increasing number of cyclists in the City. The medium term programme will build upon the foundations established by the short term research, scheme development and Area Strategy work which is either currently underway or still to be commenced. It will also be heavily influenced by whether or not a 20 mph speed limit or zone is in place. As a consequence the precise range of medium term initiatives cannot be finalised at this stage but it is likely that the key components will comprise some or all of the following:
121. Continued enforcement and ETP activity will be an essential ongoing component of the RDRP strategy. Maintaining and reinforcing appropriate behaviours will continue to be important though the precise measures to be used will depend upon the particular circumstances pertaining at the time.
122. It is likely that there will be a number of potential engineering measures for implementation at specific hotspots following completion of TfL's junction review.
123. The various Area Strategies will have been adopted and are likely to include a series of measures to improve the safety and operation of key junctions and corridors, such as the removal of one-way working and full or partial pedestrianisation schemes. Thus a key feature of the medium term is likely to be the implementation of major improvements at locations such as Aldgate and Bank junction.
124. The existing courtesy crossings (raised entry treatments) in the City have proved very effective in reducing vehicle speeds and reducing risk for pedestrians. A programme of introducing these crossings at most junctions in the City would help to improve driver behaviour and would complement and reinforce the proposed 20 mph limit or zone.

Long term (up to 2020)

125. The main challenge in the longer term is likely to be providing a safe environment for the increasing number of pedestrians in the City following the opening of Crossrail in late 2018 and the associated increase in City employment. To an even greater extent than the medium term, the long term is affected by uncertainties and the proposed actions will need to be reviewed and refined during the life of the Plan. The following measures are proposed:
- Continued enforcement and ETP activity with an increasing focus on pedestrian safety particularly on routes to and from the new Crossrail stations.

- Continued implementation of safety related measures identified in the Area Strategies.
- Implementation of measures to achieve a radical change in the function of City streets such as removing or reducing the number of buses from certain corridors following the opening of Crossrail and/or banning deliveries when streets are most heavily used by pedestrians and cyclists.

Funding options

Estimated costs

126. Further work will be required to identify the viability and estimated cost of implementing some of the recommended actions. The City of London will be able to undertake some additional preliminary investigations from within existing staff resources but additional sources of funding are likely to be needed to provide enhanced enforcement and ETP activity, undertake surveys and evidence gathering, produce publicity and guidance materials, and, not least, to implement the any additional road safety schemes or initiatives that may be developed.

Sources of funding

127. The action plan is relatively high level and many of the proposed work streams have not been fully costed. Some of the actions will be funded from existing budgets but it is clear that additional funding will be required to fully implement all the measures within the Plan and further work will be undertaken to provide cost estimates and identify potential funding sources. These might include S106 contributions, the Community Infrastructure Levy (CIL), EU funding, private sponsorship or most likely utilisation of the City's On-Street Parking Reserve; which can be used to change the highway and traffic infrastructure and, deliver the Mayor's Transport Strategy.

Governance and monitoring

128. TfL proposes to establish a new Road Safety Reference Board for London (RSRB) to facilitate input into the development and implementation of road safety policies and help oversee continuous improvements in road safety in London.

129. The City Corporation and the City of London Police will participate in the RSRB, the aims of which include:

- To review and report on progress in implementing road safety policy in London
- To report progress towards achieving the KSI casualty reduction target for London
- To report on safety camera operations in London
- To foster links with other organisations to encourage a holistic approach to road safety in London
- To discuss road safety priorities and key road safety issues
- To disseminate good practice
- To provide a high profile reference point for all road safety activities in London

130. The City will monitor the progress made in reducing the number and severity of casualties yearly in an annual report produced for collisions and casualties on the City's roads to include pedestrian, pedal cycle, powered two-wheeler and child collision and

other casualty data. This will complement the monthly Collision and Casualty Intelligence reports prepared by the City of London Police.

131. An annual City Road Danger Reduction meeting is proposed at which politicians from the City and the GLA would review past performance and the forward work programmes of the Corporation and TfL.

Partnership working

132. Improving road safety requires work across a wide range of issues involving many organisations working in partnership. The preparation of this plan has been supported by engagement with the City Police and this engagement approach needs to continue.

133. The City Police play a vital role in reducing road casualties through their road policing activities and have units dedicated to reducing offending on London's roads and the provision of road safety education. Successful joint working with the police already occurs and will underpin successful delivery of further road safety improvements. It is therefore proposed to establish a Road Danger Reduction Partnership to include the City Corporation, the City of London Police, TfL and other interested parties to work together in delivering this plan.

134. The following activity will take place.

- Review casualty reduction targets jointly
- Continue to deliver jointly staffed campaigns
- Continue to support the police with their enforcement campaigns
- Senior Police and City of London officers will meet quarterly to review joint engagement.
- Reports to the Police Committee and the Streets and Walkways Sub-Committee where possible to be jointly authored, but otherwise to be shared between services for consultation.

135. The City will also work with neighbouring authorities through the central London Sub-Regional Forum or bilaterally to share best practice and deliver shared solutions, where appropriate. This will include benchmarking its road safety activity, against other authorities' performance as appropriate.

136. There will also be consultation and dialogue with road user groups on proposed road danger reduction schemes arising from this plan.

Recommended action plan

137. The key actions that the City proposes to take are summarised in the table below.

	Action	Expected outcome	Timeframe
	Short term (to December 2014)		
1.	Refocus Road Safety Team to conduct safety monitoring of streets within the City to identify danger hotspots and possible remedial measures.	Safer streets	2013
2.	Investigate 20 mph speed limit/zone	Safer streets and people	2013
3.	Implement 20 mph speed limit/zone (depends upon the outcome of 2 above)	Safer streets and people	2014
4.	More focussed and evidence based enforcement/ETP activity, with a strong emphasis on cyclists, those on foot and motorcyclists. To include a cost benefit analysis based upon the promotion of safer cycling in Cheapside.	Safer people	ongoing
5.	Investigation and development of measures for implementation in the medium and longer term, including better data collection and analysis, development of a pedestrian model and commencement of a programme of street auditing looking first at junctions with high casualty rates and at least one key cycle route across the City.	Safer streets	2013
6.	Implement approved engineering measures; both large and small – e.g. Holborn Circus, 2-way cycling, advance cycle stop lines.	Safer streets	2014
7.	Review management of road works, temporary reinstatements and construction sites, including road safety elements of the Considerate Contractors scheme; to deliver better safety outcomes.	Safer streets	2013
8.	Review the safety aspects of the operations and contracts undertaken using vehicles within the City, ensuring that all drivers are trained in relation to cycle safety and the fleet is fitted with appropriate safety measures such as reverse cameras, audible warning, and 'fresnel' mirrors.	Safer people	2013
9.	Engagement with TfL to secure improvements on the TLRN and to lobby for the optimisation of signal timings to improve road safety	Safer streets	2013
10.	Hold annual Member-level City Road Danger Reduction meeting with TfL.		2013
11.	Strengthen work with the City Police at an operational and strategic management level.		2013
	Medium term (up to December 2017)		
12.	Continued enforcement and ETP activity	Safer people	ongoing
13.	Continue investigation and development of measures for implementation in the longer term, including continued review of major junctions, gyratories and key cycling corridors.	Safer streets	

14.	Implement measures from TfL junctions review	Safer streets	2016
15	Implement measures from Area Strategies and the review of dangerous junctions and streets. e.g. Aldgate and Bank junction improvements and the Fleet Street to St Paul's corridor. Seek to remove all gyratories within the City.	Safer streets	2017
16.	Complete the universal courtesy crossing programme.	Safer streets	2015
17.	Prepare streets for major transport projects such as Crossrail and Bank Station upgrade ensuring street design mitigates risks associated with pedestrian congestion.	Safer streets	2017
	Long term (up to 2020 and beyond)		
18.	Continued enforcement and ETP activity	Safer people	ongoing
19.	Continued implementation of safety related measures identified in Area Strategies and LIP programmes	Safer streets	2020
20.	Change the streets to provide increased priority and safety for pedestrians and cyclists, once Crossrail has opened.	Safer streets	2020