

# Harrow Road Safety Strategy 2019





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## 1. Introduction

This strategy is being prepared to show how the borough delivers road safety improvements through the use of engineering, education, training and enforcement. The strategy also shows that the borough complies with the statutory duties as laid out in the 1988 Road Traffic Act and the Mayor's Transport Strategy 2018 (MTS). This road safety strategy will replace the previous road safety plan that was prepared in 2015.

Since the previous road safety plan was produced, there has been a new Mayor's Transport Strategy, with changes in priorities and the adoption by the Mayor of London and by Harrow Council of a Vision Zero approach to road safety.

Every year more than 2,000 people are killed or seriously injured on the roads in London. In 2017, 69 people were killed or seriously injured on the roads in Harrow. This is far too many. These casualties also significantly impact on the friends and families of the people killed or seriously injured.

Across London, more people are now walking, cycling and using motorcycles. This is all being encouraged through the political agenda. In particular walking and cycling are being promoted to encourage better health, more sustainable transport, to reduce motorised dominance of roads and to improve air quality. However people walking, cycling and using motorcycles are all vulnerable to road casualties and have an increased road casualty risk.

### 1.1 Legislation

Harrow has a statutory duty in regards to road user safety. This is based on the Road Traffic Act 1988 and also the Mayor's Transport Strategy 2018.

#### 1.1.1 *The 1988 Road Traffic Act, Section 39*

The 1988 Road Traffic Act, Section 39, puts a "statutory duty" on all local authorities to undertake studies into road traffic collisions, and to take steps both to reduce and prevent them.

The significant wording in the Act is as follows:

- Each local authority must prepare and carry out a programme of measures designed to promote road safety and may make contributions towards the cost of measures for promoting road safety taken by other authorities or bodies.

Each local authority -

- Must carry out studies into accidents arising out of the use of vehicles on roads or parts of roads, other than trunk roads, within their area
- Must, in the light of those studies, take such measures as appear to the authority to be appropriate to prevent such accidents, including the dissemination of information and advice relating to the use of roads, the giving of practical training to road users or any class or description of road users, the construction, improvement, maintenance or repair of roads for which they are the highway authority and other measures taken in the exercise of their powers for controlling, protecting or assisting the movement of traffic on roads

#### 1.1.2 *Mayor's Transport Strategy 2018*

Road safety is a priority for London and the Mayor's Transport Strategy sets out the objective of eliminating all deaths and serious injuries on the city's network by 2041. This is known as Vision

Zero. The key policies and proposals in the MTS that drive Harrow's road safety initiatives are as follows:

### *Policy 3*

The Mayor, through TfL and the boroughs, and working with stakeholders, will adopt Vision Zero for road danger in London. The Mayor's aim is for no one to be killed in or by a London bus by 2030, and for all deaths and serious injuries from road collisions to be eliminated from London's streets by 2041.

### *Proposal 9*

The Mayor, through TfL, the boroughs and policing and enforcement partners, will seek to reduce danger posed by vehicles by:

- a) Introducing lower speed limits and improving compliance with speed limits through design, enforcement, technology, information and appropriate training.
- b) Conducting a systematic review of all road junctions, introducing road danger reduction measures at locations that pose significant risk to vulnerable road users.
- c) Working to ensure that vehicles driven on London's streets adhere to the highest safety standards, starting with a new Direct Vision Standard for HGVs and including the introduction of new vehicle technologies such as Intelligent Speed Assistance and Automatic Emergency Braking.
- d) Delivering a programme of training, education and (working with the police) enforcement activities to improve the safety of vulnerable road users, including the delivery of improved and new training for motorcyclists and working with stakeholders, including the freight industry, to improve standards of professional driving.
- e) Working with stakeholders to improve the emergency response to collisions, support victims of road crime, improve accountability and transparency, and learn from collisions.

### *Proposal 10*

The Mayor, through TfL and the boroughs, will collaboratively set out a programme to achieve the Vision Zero aim of reducing the number of people killed or seriously injured on London's streets to zero.

## **1.2 Harrow transport objectives**

As part of developing Harrow's Local Implementation Plan 2019/20-2021/22 (LIP3), Harrow developed objectives that drive transport delivery in the borough. These objectives were widely consulted on as part of the LIP3 consultation and are all provided in

Appendix A - Harrow's transport objectives. Key to road safety in the borough are objectives 1 and 2. These are as follows:

1. Improve the public realm through the introduction of healthy streets and liveable neighbourhoods to better enable active and safer travel particularly for pedestrians and cyclists thereby reducing congestion and improving public health and local air quality
2. Adopt a Vision Zero approach towards eliminating all road traffic deaths and serious injuries by 2041 and focus on reducing the number of motorcycle casualties across the borough

### **1.3 Harrow road safety policies**

Harrow's Transport LIP3 also developed road safety policies that were also widely consulted on as part of the LIP3 consultation. These policies are as follows:

- RS1 Adopt a Vision Zero approach towards eliminating all road deaths and serious injuries by 2041
- RS2 Employ a road danger reduction approach to design, using the streets toolkit for designers, Road Safety Audit, and Healthy Streets Check for Designers
- RS3 Prioritise schemes that maximise casualty reduction predictions and pose the highest risk to vulnerable road users and in particular the numbers killed and seriously injured per annum for the available finance
- RS4 Ensure that the safety concerns of all road users, including pedestrians, cyclists, horse riders and those in motorised vehicles are considered when developing any traffic scheme
- RS5 Prepare a programme of 20 mph zones in the borough and incorporate these into schemes for future TfL funding
- RS6 Increase the extent of 20mph roads in the borough and expand the existing 20mph zones to cover more areas where people live, work and shop and where children travel to school
- RS7 Work with the parking service and police to enforce and promote safe driving and parking in school zones
- RS8 Where possible use engineering solutions to minimise the need for additional road safety enforcement
- RS9 Maintain an effective method of accident monitoring for the borough
- RS10 Use accident statistical data to recognise trends and deliver targeted educational and engineering initiatives, with a focus on roads with a higher risk of motorcyclist collisions
- RS12 Educate road users on the shared responsibility for safer cycle and motorcycle journeys, through driver and motorcyclist/cyclist skills training and communications
- RS13 Promote Motorcycle Industry Association (MCIA) accredited training providers to motorcyclists looking to undertake Compulsory Basic Training
- RS14 Provide BikeSafe vouchers for subsidised courses delivered by local Motorcycle Industry Association (MCIA) accredited training providers
- RS15 Improve the safety of street design by following the design guidance set out in TfL's Urban Motorcycle Design Handbook
- RS16 Encourage safe and considerate driving, at appropriate speeds, as part of travel awareness and road safety education campaigns and review existing speed limit to ensure they are appropriate to the location
- RS18 Carry out road safety audits of all new significant traffic and highway proposals



- RS19 Deliver appropriate road safety interventions and resources for road users aged 60+ by targeting community groups, day centres and social clubs, facilitating bespoke workshops and presentations and providing road safety literature
- RS22 Work with the Metropolitan Police in using their powers of enforcement to deal with illegal cycling on pavements and footpaths

Other agreed school transport policies relating to road safety and included in LIP3 are as follows:

- S4 Provide and promote cycle training for children and adults who work, study or live in the borough
- S6 Work with TfL to ensure take-up of Children's Traffic Club, a London road danger reduction education resource for pre-schoolers
- S7 Work with TfL to ensure take-up of the Safety and Citizenship pre-transition safe and responsible behaviour sessions for Year 6 pupils
- S8 Work with TfL to ensure take-up of the Junior Travel Ambassador and Youth Travel Ambassador schemes, addressing transport and road safety issues in schools
- S9 Provide road safety education events at schools and colleges throughout the borough
- S11 Work with schools to reduce the number of school trips made by car and liaise with schools regarding suggested highway works required in school locality

## 2. Vision zero

Vision Zero is a multi-national project that aims to achieve a highway system with no road traffic fatalities or serious injuries. A core principle of Vision Zero is that 'life and health can never be exchanged for other benefits within the society'. Prior to Vision Zero, measures to address road casualties were considered using a social cost benefit analysis.

Vision Zero started in Sweden, but has now been introduced to varying extents in Germany, the Netherlands, Canada, the USA and the UK.

The Mayor's Vision Zero Action Plan identifies and addresses the key issues for road safety in London which are safe speeds, safe streets, safe vehicles, safe behaviours and the post-collision response.

The Vision Zero target for London is the elimination of all deaths and serious injuries from London's streets by 2041. Harrow has adopted this target for the borough.

## 3. Healthy streets approach

The Healthy Streets approach is the underlying framework for the Mayor of London's Transport Strategy. The Healthy Streets Approach is a system of policies and strategies to put people, and their health, at the centre of decision making. Harrow has adopted the healthy streets approach to all transport initiatives in the borough and in particular to deliver improvements that will enable the borough to improve road safety.

Adopting the Healthy Streets approach is intended to ensure that the whole community feels comfortable and safe on the streets and do not feel worried about road danger.



The healthy streets approach will help the borough work towards creating a safer, healthier and more attractive street environment. The healthy streets approach is not a quick fix to deliver change, it is a long-term plan for improving people’s experiences of streets, helping everyone to be more active, safer and enjoy the health benefits of an improved environment.

Figure 1 shows the ten indicators that are used to measure Healthy Streets.

Figure 1: Healthy Streets indicators



#### 4. Harrow road safety objectives

Based on the Harrow LIP3 and the Mayor of London’s Transport Strategy 2018, the following are the road safety objectives for Harrow:

1. Use engineering and enforcement measures to improve borough road safety
2. Provide cycle training to Bikeability standards for children and adults who work, study or live in the borough
3. Provide road safety education events in schools and road safety support for pre-schoolers to develop traffic awareness and road safety skills
4. Conduct road user safety campaigns and road safety training courses aimed at reducing the number of collisions on the roads

The road safety objectives fit well with the Healthy Streets indicators and this is shown in Table 1.

Table 1: Road safety objectives link to healthy streets

Objectives	How each objective contributes to the Healthy Streets Indicators' scores
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	Pedestrians from all walks of life	Easy to cross	Shade and shelter	Places to stop and rest	Not too noisy	People choose to walk, cycle and use PT	People feel safe	Things to see and do	People feel relaxed	Clean air
Use engineering and enforcement measures to improve borough road safety	✓	✓				✓	✓		✓	
Provide cycle training to Bikeability standards for children and adults who work, study or live in the borough					✓	✓	✓		✓	✓
Provide road safety education events in schools and road safety support for pre-schoolers to develop traffic awareness and road safety skills	✓					✓	✓			✓
Conduct road user safety campaigns and road safety training courses aimed at reducing the number of collisions on the roads	✓					✓	✓			

## 5. Accident causes

Most road accidents have several causes, the main ones being human error, environmental problems and mechanical faults. Human error is a factor in over 90% of all road collisions in London. Vehicles travelling at inappropriate speed are a key factor in many of these accidents. Other issues that need to be addressed to reduce road casualties include making the streets feel safer, improving the safety of vehicles and encouraging safer road user behaviour.

Recent analysis of accident data has shown that people are more at risk per journey when walking and cycling in outer London than in central London. The absolute numbers of injuries among people who walk, cycle and use motorcycles are highest in inner London. However those walking or cycling in outer London boroughs are at most risk per kilometre travelled. This is concerning as the borough needs to encourage increased walking and cycling in order to ensure sustainable growth across the borough, to improve personal health, address climate change and to ensure a sustainable future.

The borough can play a significant role in reducing traffic speeds, removing the dominance of the car in town centres, improving the street environment and improving road user behaviour.

### 5.1 Speed

The speed at which people are travelling is the single most important determinant of both the likelihood of a collision occurring and the severity of the outcome. If a pedestrian is hit by a vehicle at 20mph, they are about five times less likely to be killed than if they were hit at 30mph. Inappropriate speed is a factor in up to 37 per cent of collisions resulting in death or serious injury on London's streets. To address speed on the roads in Harrow, the borough has a programme of rolling out 20mph zones around schools in the borough. Around 50% of the road network is covered by 20mph speed restrictions and the borough will work to increase this.

## 5.2 Street environment

Reducing danger at locations where the likelihood of injury is higher than in other places helps to make the streets feel safer. This is particularly a problem at junctions where cyclists and motorcyclists are most vulnerable. In Harrow, improving the safety of streets is delivered through introducing local safety schemes, 20mph speed limits and also by reducing the dominance of motor vehicles in the streets and particularly in town centres.

Local safety schemes are introduced where clusters of accidents have occurred. The types of improvements that can be made to improve safety for in local safety schemes are: improved and new crossing facilities such as Countdown times, Zebras, Pelican, Puffin and Toucan crossings, or all red phased signalled crossings; traffic speed limit signs; vehicle activated traffic speed signs; improved lighting; and changes to parking regulations to improve visibility for pedestrians.

Reducing the dominance of motor vehicles in the streets is best done through introducing liveable neighbourhoods. Harrow has a programme of liveable neighbourhood schemes that the borough would like to implement, however funding for these schemes has not yet been secured.



## 5.3 Road user behaviour

Streets can often feel as safe as the physical and social environment created by the local surroundings. Risk-taking, stupidity, carelessness and antisocial behaviour can all cause traffic collisions and are also particularly dangerous for those walking, cycling or using motorcycles.

Police data shows that 93 per cent of all factors contributing to collisions in London are due to a limited number of behaviours:

- Inappropriate speed
- Risky manoeuvres
- Distraction
- Drink/drug driving
- Vehicular and driver/rider non-compliance

## 6. Targets

The following table shows the Mayor's Transport Strategy agreed targets for London and the associated Harrow target.

MTS Target	Harrow baseline	Harrow target	Year
Reduce the number of people who are killed or seriously injured by 65 per cent against 2005-09 levels	109	38	2022
Reduce the number of people who are killed or seriously injured by 70 per cent against 2010-14 levels	79	24	2030
Eliminate all deaths and serious injuries from road collisions from London's streets		0	2041

## 7. Casualty data reporting

STATS 19 is the protocol used by the police for recording road accident data which is compiled by the Department of Transport. This is used for all injury crash data reported to the police.

Legislation defines the duty of the public to report a personal injury road accident. The Road Traffic Act 1988 stipulates that all fatal or injury accidents on public roads involving at least one mechanically propelled vehicle should be reported by the public to the police unless insurance documents, name and address, and details of vehicle ownership and registration are exchanged between drivers.

Since November 2016, the police have used a new method of assessing injuries and collision reporting. Under the new systems officers use an 'injury-based assessment' as well as online self-reporting. This contrasts with the previous system where officers recorded whether, in their judgement, an injury was 'slight' or 'serious'. The use of these new systems has resulted in improved accuracy in the recording of injury type, with more injuries being classified as serious rather than slight. These changes are expected to provide a better assessment of injury occurrence and severity but have made data collected from November 2016 onwards difficult to compare with earlier data.

The introduction of online self-reporting has made it easier for members of the public to report collisions to the police. A result of this is that there has been an increase in the number of self-reported casualties during 2017 compared to 2016. This has contributed to an overall increase in the number of casualties reported on London's roads during 2017.

Following the changes in reporting, TfL commissioned the Transport Research Laboratory (TRL) to undertake a back-casting exercise to enable pre November 2016 data to be compared with post November 2016 data. This back-casting data has been used in this report for all data other than that shown in the maps.

## 8. Casualty Analysis

Casualty data analysis is crucial in determining that road safety engineering as well as education and enforcement are appropriately directed to ensure the best results.

More than twice as many men than women were killed or seriously injured on roads in Harrow in 2017. This may be the result of higher risk taking by the male population but there may also be many other factors involved. Increased numbers of older people are involved in accidents, but this is partly because people are living longer and many are more mobile than in previous years. Studies have also shown that people from more deprived areas, some ethnic minorities, disabled people, children and older people are all disproportionately affected by road danger.

Road casualties are influenced by a combination of issues. These include:

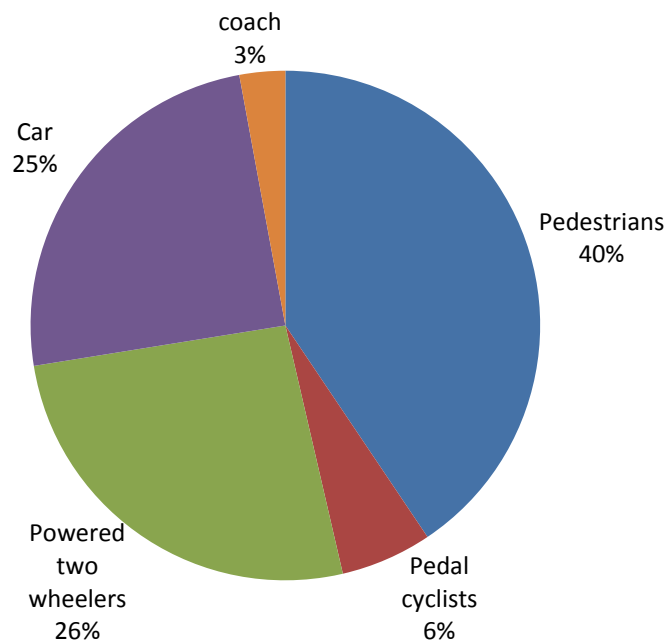
- The distance people travel
- Modes of transport used
- Behaviour and speed of driver and of other travellers - drivers, passengers, cyclists, motorcyclists, pedestrians, alcohol consumed, tiredness
- Weather and lighting such as snow, ice, poor lighting etc.

The available casualty data is used to influence the road safety initiatives introduced.

### Travel mode KSIs in Harrow

Figure 2 show the vulnerability of pedestrians and motorcyclists in being injured on the roads in Harrow. The relatively low number of cyclist KSIs is partly a result of the low number of people cycling in the borough. Cycling numbers are also low partly as a result of the long distances needed to travel to inner-London jobs.

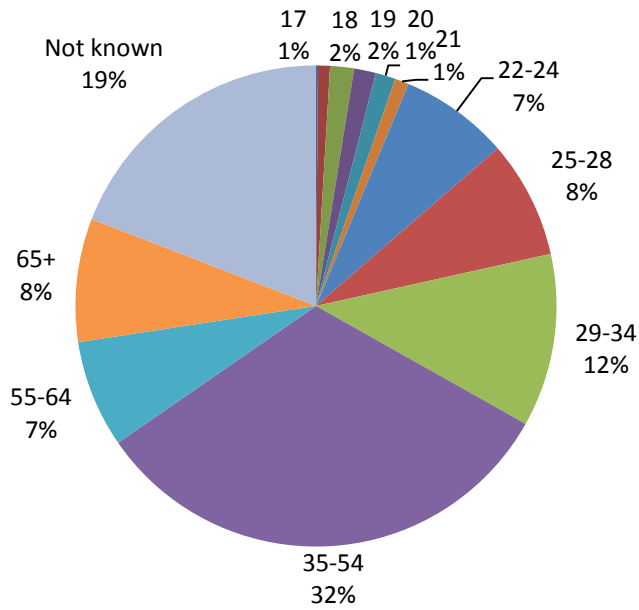
Figure 2: Fatal and serious casualties by mode in Harrow, 2017



### Driver age group

Figure 3 shows the ages of drivers involved in collisions in the borough. This will help to direct educational and promotional road safety resources to the right age groups.

Figure 3: Driver age group for vehicles involved in collisions in Harrow, 2017

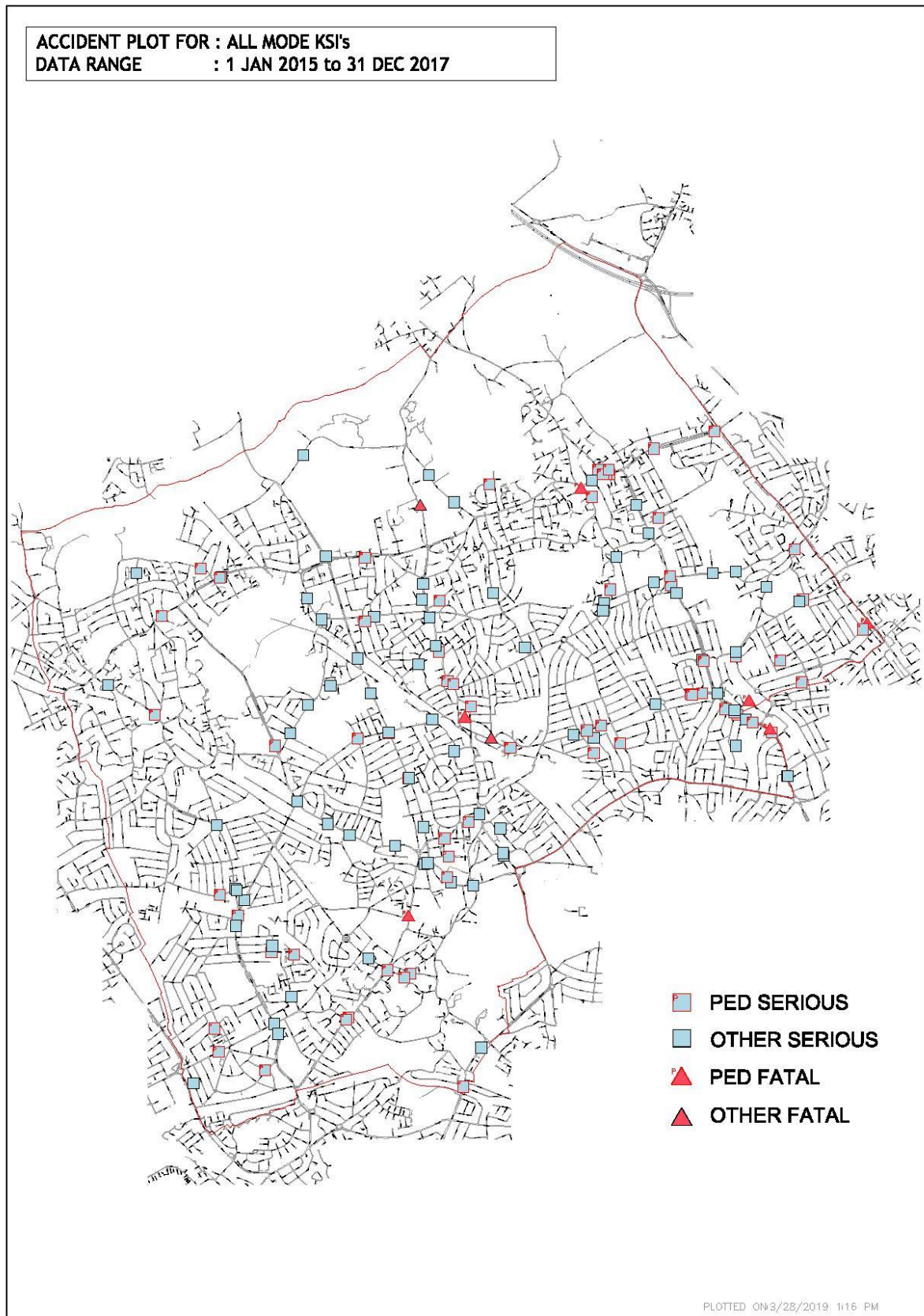


### 8.1 Casualty patterns

Figure 4 shows all mode KSIs only in the borough between 2015 and 2017. These maps show that there are no discernible clear patterns of KSIs in the borough. This is partly as a result of the overall low casualty rates.



Figure 4: All modes KSI 2015-2017





Motorcyclists, cyclists and pedestrians are most vulnerable on the roads. For this reason, these accidents are looked at particularly carefully. Figure 5, Figure 6 and Figure 7 show KSI borough maps separately for each of these road user types.

Figure 5: Pedestrian KSIs 2015-2017

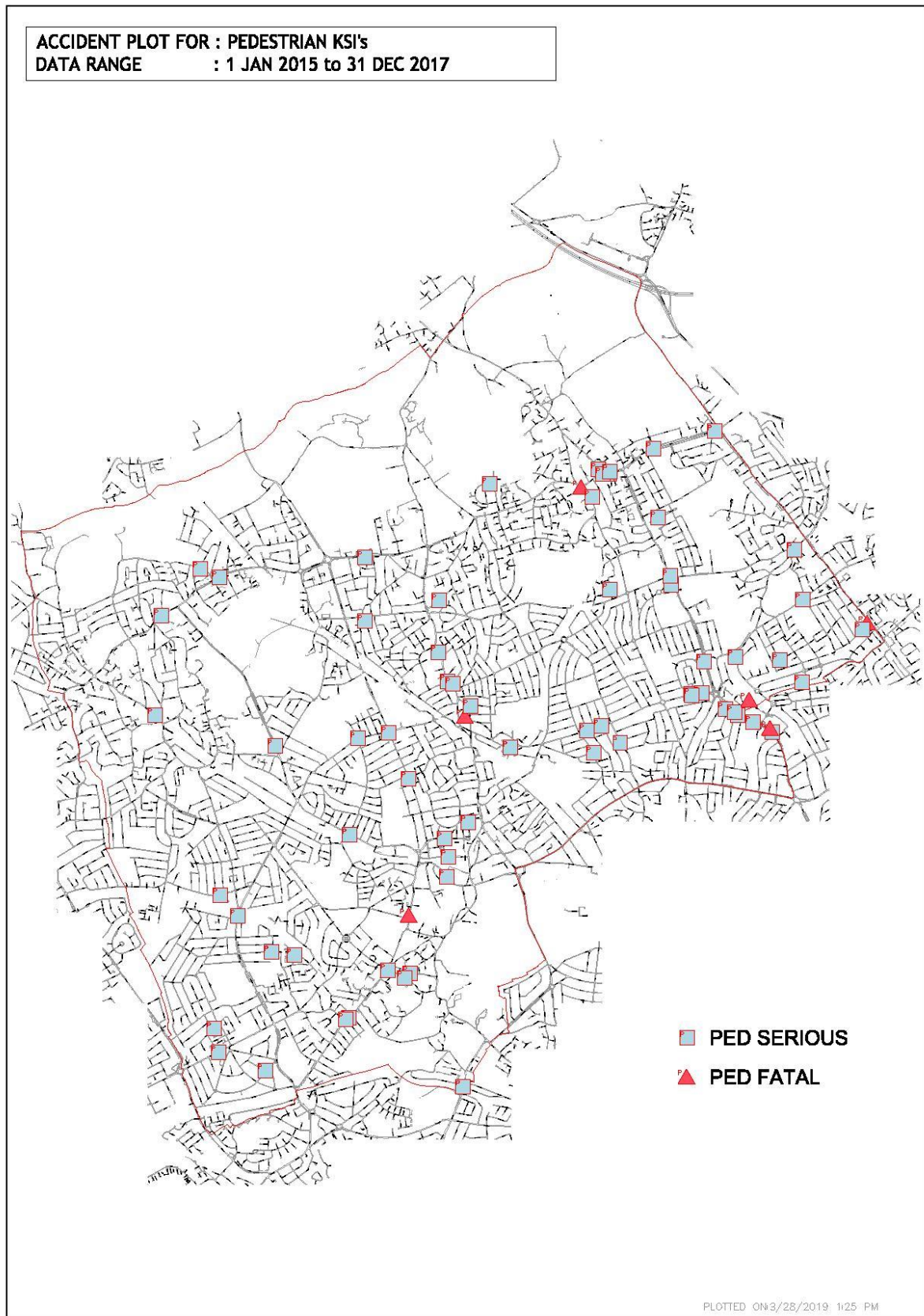


Figure 6: Cyclist KSIs 2015-2017

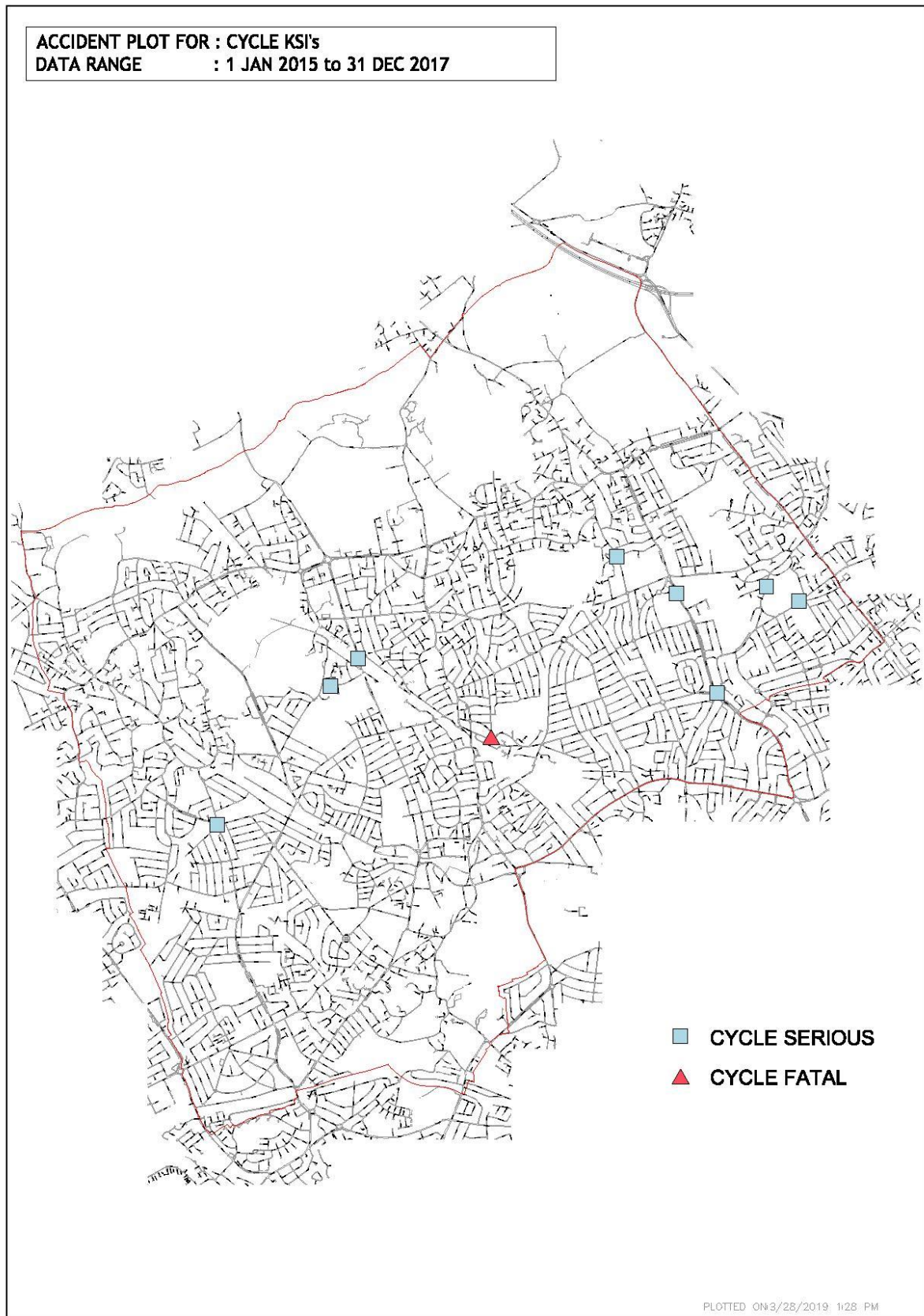




Figure 7: Motorcycle KSIs 2015-2017

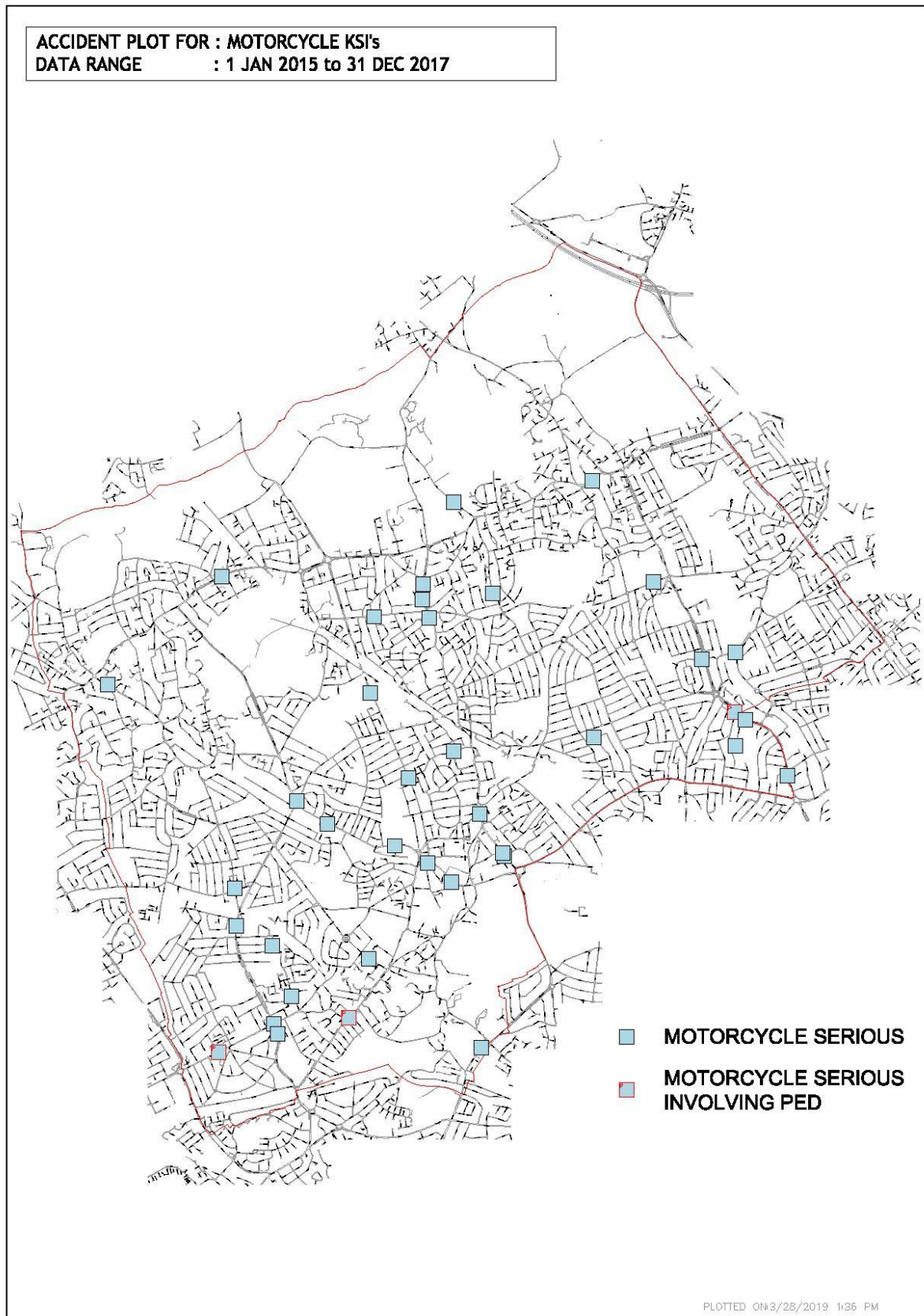
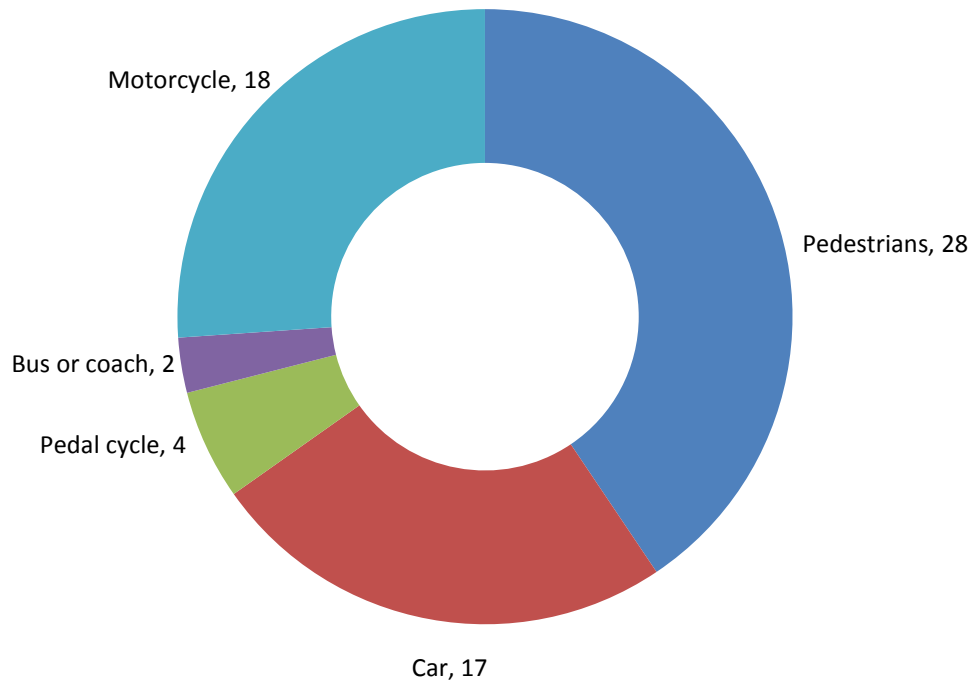


Figure 8 shows the vulnerability of pedestrians and motorcyclists on roads in the borough. The low number of cyclist KSIs is partly due to the fact that rates of cycling in Harrow are so low. However it is the proportion of accidents per mode user that is most important.

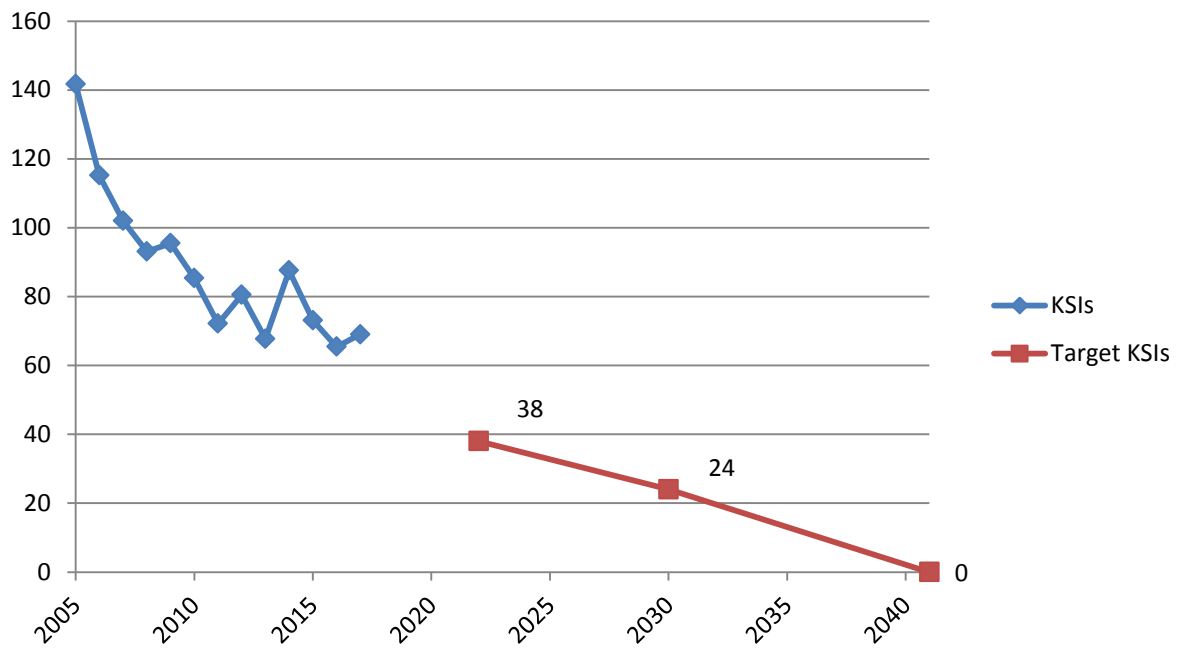
Figure 8: People killed or seriously injured casualty type 2017



## 8.2 Casualty trends

Figure 9 shows the borough KSI data along with the long term KSI targets. Although the KSI target is challenging, it is clearly achievable. A major component of delivering lower KSIs will depend on reducing borough speed limits in more locations.

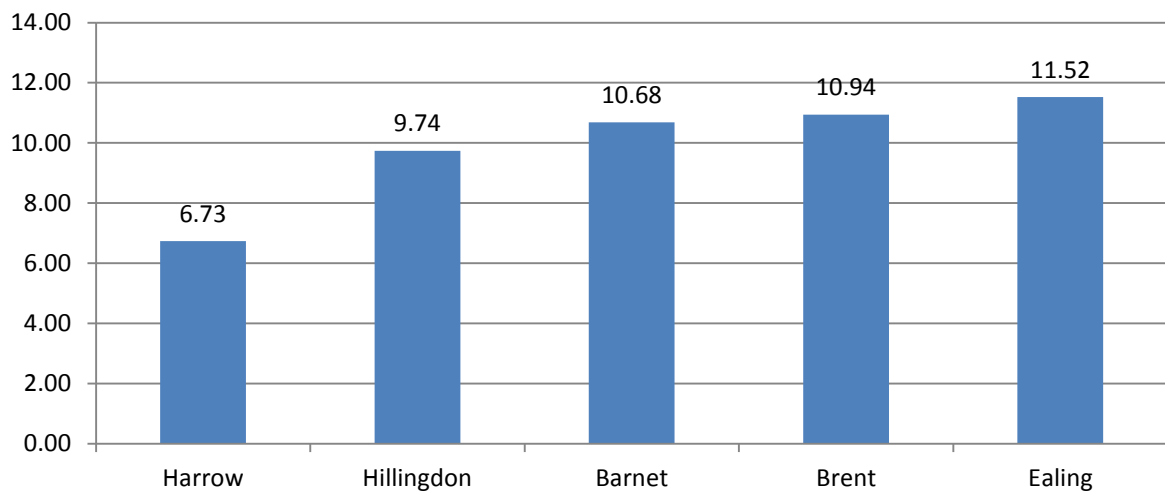
Figure 9: Harrow KSIs and target



### 8.3 Casualty comparisons

Figure 10 shows the total casualties (2015-2017) per 1000 population (2017) for Harrow and neighbouring boroughs. The chart shows that Harrow has less casualties per 1000 population than all neighbouring boroughs.

Figure 10: Total casualties (2015-2017) per 1000 population



Population source: UK National Statistics 2017

## 9. Achieving Harrow objectives

### 9.1 Road Safety objective 1: Use engineering and enforcement measures to improve borough road safety

The borough employs a road danger reduction approach to design, using the streets toolkit for designers, Road Safety Audit, Healthy Streets Check for Designers and TfL's Urban Motorcycle Design

Handbook. Road safety schemes are prioritised that maximise the casualty reduction predictions and pose the highest risk to vulnerable road users and in particular the numbers killed and seriously injured per annum for the available finance.

To address safety issues relating to traffic speed, the borough routinely reviews existing speed limits to ensure that they are appropriate to the location. The borough will increase the extent of 20mph roads across the borough and also expand the existing 20mph zones to cover more areas where people live, work and shop and where children travel to school. The borough has a future programme of 20mph zones and these are incorporated into future schemes for TfL funding.

In all new schemes, engineering solutions that minimise the need for additional road safety enforcement are always prioritised. Road safety audits are always carried out on all new significant traffic and highway proposals

### 9.1.1 20mph zones

20mph zones create a safer environment for all road users and are introduced to encourage modal shift from the private car to sustainable modes of transport such as walking and cycling. They not only improve the safety of an area, but also improve the perception of safety.

Harrow has introduced 20mph zones around most of the schools in the borough. A few of the schools in the borough are located in areas where it is not possible to introduce a 20mph zone such as being located by a main road.

Figure 11 shows schools in the borough as well as the existing 20mph zones in the borough.



Around 50% of the road network is covered by 20mph speed restrictions and the borough will work to increase this.

Harrow 20mph zones are designed to be "self-enforcing" due to traffic calming measures which are introduced along with the change in the speed limit. Speed humps, chicanes, road narrowing, and other measures are typically used to both physically and visually reinforce the slower speed limits.

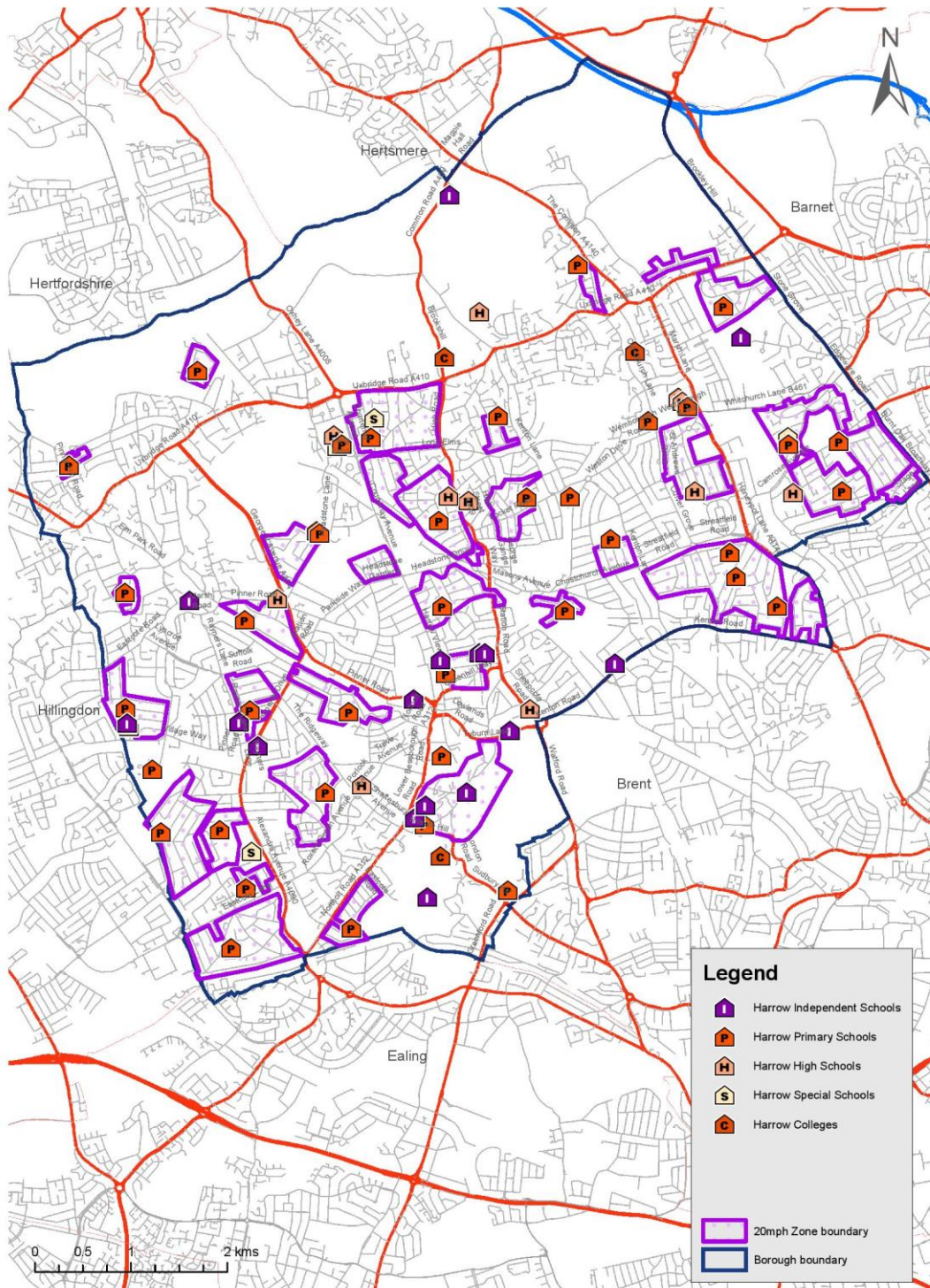
The main aims of the introduction of a 20mph speed limit in an area are to:

1. improve road safety
2. discourage passing through traffic
3. encourage walking and cycling
4. improve the local environment

Before and after site surveys such as speed surveys are undertaken to monitor the impact of the measures introduced. The borough shares recorded speed survey data with the police at quarterly traffic liaison meetings so they can decide whether they should target their resources in the area.



Figure 11: 20mph zones and schools



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### 9.1.2 Local safety schemes

Local Safety schemes form part of the Mayor of London's vision zero transport strategy for deaths and serious injuries to be eliminated from all road collisions on London streets by 2041. They are introduced to reduce casualties in any area where clusters of accidents occur. Section 8.1 on Casualty patterns provides more information on where casualties have occurred in Harrow.



Pedestrians crossing roads are particularly vulnerable when involved in accidents with motorised vehicles. The risk is even greater when vehicles are travelling at speed. The types of improvements that can be made to improve safety for pedestrians in these schemes are: improved and new crossing facilities such as Countdown times, Zebras, Pelican, Puffin and Toucan crossings, or all red phased signalled crossings; traffic speed limit signs; vehicle activated traffic speed signs; improved lighting; and changes to parking regulations to improve visibility for pedestrians.

Cycle safety can be addressed in local safety schemes. Three-quarters of collisions with cyclists happen at junctions. The types of improvements that can be made to improve safety for cyclists are: separating cycling from motorised vehicles, providing dedicated cycle lanes or advisory lanes and providing advanced stop lines for cyclists at junctions. Cycling advanced stop lines are designed to allow cyclists to pull away in front of traffic at signals where they change to green.



An analysis into the effectiveness of local safety schemes is shown in Appendix B – Effectiveness of Local Safety Schemes. This shows that since 2010, there has been a reduction in KSIs of 84% following implementation of local safety schemes and a reduction of 75% in all casualties.

### 9.1.3 Local safety parking schemes

Local safety parking schemes are introduced to improve local pedestrian access and also to protect dropped crossings. These schemes often also improve visibility for pedestrians crossing roads and may involve changes to road markings or operational hours of controlled parking bays.

### 9.1.4 School travel plan engineering measures

All schools in Harrow are encouraged to develop travel plans to promote and encourage safe, active and sustainable travel on the school journey. A school travel plan (STP) is a document produced by a school that promotes sustainable ways for the whole school community to travel to and from school. When STPs identify engineering measures that would help make journeys to the school safer, healthier and more environmentally friendly, the measures are given a high priority for implementation.



### 9.1.5 Speed limit reviews

Speed limits of 20mph will be introduced on all central London roads managed by TfL within the Congestion Charging Zone by 2020. The borough also intends to reduce speed limits on more roads and speed limits on all roads in the borough are regularly reviewed.

The primary purpose of a speed limit is to indicate the maximum permitted speed to be driven on a road or within a defined area. Speed limits need to be set appropriate for the particular road and the purposes for which it is used. Speed limits should fit into a rational and easily understood hierarchy if they are to be observed by drivers. Before deciding to change an existing speed limit the Traffic Authority must consider all the relevant factors, including:

- accident and casualty savings
- improvement to the environment
- improvement in conditions and facilities for vulnerable road users
- reduction in public anxiety
- increased journey times for motorised traffic
- costs of implementation
- costs of engineering measures and their maintenance
- negative environmental impact of engineering measures
- costs of enforcement

If it is considered that a change in the speed limit is the best course of action, then a speed limit Order has to be made. This involves a statutory legal process.

### 9.1.6 Community roadwatch

Community roadwatch gives local residents the opportunity to work side by side with their local police teams, and use speed detection equipment to identify speeding vehicles in their communities. When vehicle speeding is identified, warning letters can be issued by the police where appropriate, and the information can help to inform the future activity of local police teams. Community roadwatch events happen throughout the year at various sites across the borough where requests for speed enforcement have been received by the public.

### 9.1.7 Speed activated signs (SAS)

Speed (or vehicle) activated signs are used to address the problem of inappropriate speed where conventional signing has not been effective or where engineering measures would be unsuitable or unfeasible due to site constraints.

Speed activated signs are considered for use in residential streets where traffic speeds are regularly observed above 30 mph. In these cases, the borough shares recorded speed survey data with the Police at quarterly traffic liaison meetings so that they are aware of where the signs are installed and so that they can decide whether they should target their resources to enforce them.

When considering future SAS sites the borough looks at all sites consistently and considers a



number of factors including:

- 1 The existing accident collision history
- 2 The existing 85% tile speed of traffic ( This would need to be over 110% + 1mph over the posted speed limit)
- 3 The presence and condition of existing signing and lining
- 4 Whether other measures may be recommended or be more suitable e.g. road markings, warning signs
- 5 Whether a suitable location exists for an SAS

Additionally, the borough considers other factors at some sites such as whether a SAS is suitable for the requested site (e.g. if it's in a conservation area).

#### *9.1.8 Pedestrian crossings*

The types of crossings available in any location, impact on pedestrian safety and also on pedestrian perceptions of safety. Road junctions and crossing points are, by definition, locations where conflicting movements between motor traffic, cyclists, pedestrians and mobility impaired users are concentrated. The type of crossing introduced at any location is chosen based on the local environment, the pedestrian and cycle flows and also traffic volumes and speed. Replacing any crossing facility has cost implications and for this reason, crossings in Harrow are primarily replaced where a need based on safety or improved accessibility has been identified.



#### *9.1.9 Countdown timers*

Pedestrian countdown timers show the amount of time left to cross the road before the red man appears. This allows pedestrians to decide if they have enough time to cross the road. The countdown display is shown on the opposite side of the road, next to the green and red man signals. After the green man has signalled to pedestrians to start crossing the road, there is a 'blackout' phase where no pedestrian signals are shown. During the blackout phase, the countdown begins, ending with a red man pedestrian signal. The duration of the countdown varies depending on the signal timings at the junction.

The advantages of these timers are as follows:

- Pedestrians feel less rushed when crossing
- Gives more confidence to mobility impaired pedestrians, who may cross more slowly
- Pedestrians who didn't see a green man signal can decide if they have enough time to cross the road
- Some installations can allow a small reduction in delay to motorised vehicle traffic

Harrow is reviewing all controlled crossings at junctions for suitability for introducing countdown timer crossings and will introduce these where deemed most beneficial in terms of safety benefits.

#### 9.1.10 Enforcement cameras

Speed and red light cameras have been introduced at sites where people have been killed or seriously injured due to a driver going too fast or running a red light. As road safety has significantly improved across the borough, no new speed or red light cameras have been introduced since 2010. This [link](#) to the TfL website provides a map showing the existing locations of enforcement cameras in Harrow and all across London.

The criteria for introducing new speed or red light cameras is as follows:

##### **Speed Cameras**

In the most recent 36 month period there must be a collision history along the length of road of 4 Killed or Seriously Injured collisions, 2 of which must be speed related.

##### **Red Light Cameras**

In the most recent 36 month period there must be a collision history at the junction, and on the same arm, of 1 Killed or Seriously Injured collision and 1 other personal injury collision (slight). Both of these collisions must have been caused by a vehicle 'Disobeying Automatic Traffic Signals' (running a red light).

##### **School keep clear enforcement**

Mobile and static CCTV cameras are used to monitor School Keep Clear restrictions, which are areas specifically designed for the safe access of pupils, staff and the emergency services to and from the school premises by deterring obstructive and dangerous parking. Automatic Number Plate Recognition (ANPR) cameras are used by the mobile CCTV vehicles.



Vehicles are not permitted to wait, stop or park on a restricted area outside a school at any time during the prescribed hours of restriction.

## **9.2 Road Safety objective 2: Provide cycle training to Bikeability standards for children and adults who work, study or live in the borough**

Cycle training is an effective way of increasing confidence among adults, children and families, and encouraging more people to cycle. More confident cyclists get out on their bikes more often. Cycle training in Harrow is delivered to achieve various levels of bikeability proficiency.

To encourage increased cycling, cycle training is offered to all schools in the borough as well as offered outside the school environment. Cycle training is also facilitated for Special Educational Needs and Disability (SEND) schools providing an extended duration of training and adapted bikes



for pupils to participate in training. Some SEND training is delivered within schools and tailored to each school's requirements. Due to the variation of capabilities, not every child is able to participate. SEND training is also available to adults once requested. Training sessions are tailored to accommodate the requirements of the trainee.

To ensure that those who need to benefit from the health of increased cycling, promotional leaflets are provided across Harrow in doctor's surgeries and libraries, leisure centres, community notice boards, social media accounts/council website, Harrow People Magazine and Annual Council Tax guide promoting the health benefits of cycling and also providing information on how to access cycle training.

All cycle training courses are also promoted via the council website and with schools and businesses in the borough. Anyone who lives, studies or works in the borough is eligible to participate in cycle training. Cycle training courses are free beyond the initial £5 administrative fee. Training courses last approximately 90 minutes and are run throughout the year on Saturdays.

### 9.2.1 Bikeability training and courses

Bikeability training levels are as follows:

At **Bikeability Level 1** new riders learn to control and master their bikes in a space away from traffic such as a playground or closed car park. Trainees will usually be trained in a group of 2-12, though individual training may also be available.

**Bikeability Level 2** takes place on local streets, giving trainees a real cycling experience. Trainees learn how to deal with traffic on short journeys such as cycling to school or the local shops. Trainees are usually trained in small groups – up to 6 trainees per instructor – though individual training may also be available.

**Bikeability Level 3** equips trainees with skills for more challenging roads and traffic situations – busier streets, queuing traffic, complex junctions and roundabouts. It also includes planning routes for safe cycling. Level 3 training is delivered one-to-one or in groups of up to 3 so can be tailored to a trainee's individual needs, such as a route to work or school.

Bikeability trained cyclists receive a badge and a certificate in recognition of the level they've achieved. The certificate also includes areas for further practice noted by the instructor.

Approximately 1100 - 1200 children across the borough are trained to bikeability levels 1 or 2 per annum. Bikeability courses are delivered during term time at primary schools for children in year 4 - 6 and in selected secondary schools for year 7 - 8.



### *9.2.2 Women-only cycle training*

The Council provides women-only bike sessions which provide a supportive, social and fun environment for women aged 14+ to build their confidence and fitness. There is no required cycling ability or fitness level. These sessions are for complete beginners, nervous riders and women who are returning to cycling. Women who are not complete beginners can learn to cycle with road cyclists and women building their fitness for weekend adventures. Providing these courses encourages women's uptake of cycling in the borough. The courses aim to build up attendees' confidence level until they are riding for leisure or even part of their daily commute. Women's only sessions were introduced to not only encourage more women to cycle but appeal to women that were restricted in engaging in mixed gender activities due to cultural/religious aspects.

### *9.2.3 Balance and Ride courses for children*

Learn to Balance and Ride courses take place after school and during school holidays in schools across Harrow. Courses are available for children aged 3-11 years who cannot yet ride a bike on two wheels. During these sessions, free bicycles are provided to children to help them to learn the core fundamentals of cycling. These sessions are free but require prior booking.

## **9.3 Road Safety objective 3: Provide road safety education events in schools and road safety support for pre-schoolers to develop traffic awareness and road safety skills**

Harrow provides a range of road safety educational events to schools and colleges across the borough. Active travel maps are also made available for all schools in the borough to help pupils and parents choose sustainable, safe and healthy ways to travel to school.

TfL provides road safety educational information and materials to assist with road safety training in schools. The borough works with TfL to ensure take-up of Children's Traffic Club, a London road danger reduction education resource for pre-schoolers; take-up of the Safety and Citizenship pre-transition safe and responsible behaviour sessions for Year 6 pupils; and take-up of the Junior Travel Ambassador and Youth Travel Ambassador schemes, addressing transport and road safety issues in schools.

### *9.3.1 Children's Traffic Club*

The Children's Traffic Club (CTC) London is a free education programme covering road safety, walking, scooting and cycling for preschool-aged children, their parents and carers. It is fully funded by Transport for London. The programme has reached over three million under 5s and their families over the past 25 years. CTC aims to:

- Create positive travel 'habits'
- Influence children's long-term behaviour
- Promote active travel choices like cycling, scooting and walking
- Indirectly benefit whole family
- Reduce environmental impact relating to travel choices
- Inspire, involve and motivate young children
- Contribute to the reduction of child casualties

CTC London provides a structured scheme for parents, carers, and nurseries to teach road safety and travel skills to their pre-school children. Parents are invited to register their child through their early years setting/nursery, but can also sign up directly on the CTC London website.



### *9.3.2 Theatre in education*

Theatre in Education provides a theatre production across selected primary schools in the borough and aims at encouraging sustainable travel for the children through an interactive experience. The show lasts for under an hour, it is a high energy enthusiastic show which is then followed by an interactive game to ensure that the children have understood the issues raised in the play. Issues raised in the play include:

- Car sharing
- Public transport
- Walking
- Fuel pollution
- Climate change
- Walking and cycling being fun, healthy and sociable
- Basic road safety

This play is always well received by schools, teachers and children.

### *9.3.3 Safety and Citizenship*

TfL's Safety and Citizenship team provide pre-transition safe and responsible behaviour sessions for Year 6 pupils across London. Presentations and resources are designed to support the school Personal, Social, Health and Citizenship Education (PSHCE) curriculum. Sessions are adapted to ensure the best learning experience for each audience and can be adapted as needed to suit different community groups.

### *9.3.4 Safe Drive Stay Alive*

Safe Drive Stay Alive is a production which shows graphic film footage featuring scenes from a horrific car crash, interspersed by live speakers who provide an account of their personal experiences of collisions in a bid to shock young people into taking more care when getting behind the wheel. It is aimed at reducing the disproportionate number of road casualties among young road users and making young people aware of their responsibilities as drivers, and passengers, whilst travelling, and to positively influence their attitude. The production aims to educate students about road risks, and to enable them to identify the common causes for crashes.

### *9.3.5 Junior Travel Ambassadors*

The Junior Travel Ambassador (JTA) scheme encourages safer, active and independent travel within the school community, with a focus on year 6 pupils as they prepare for the transition to secondary school.

The scheme involves recruiting a team of JTAs; year 5 and 6 pupils who work to promote active travel and road safety to their peers through a range of activities.

TfL provides all the resources and guidance needed for the school to set up and run the school's JTA team.

### *9.3.6 Youth Travel Ambassadors*

The Youth Travel Ambassadors (YTA) programme provides young people aged 11 to 19 with the skills and confidence to address transport issues affecting the school community.

YTA teams research and develop campaigns to change people's behaviour. They focus on walking and cycling, road safety and improving passengers' experiences. They are supported by TfL, the borough and school staff.

Schools usually recruit between 6 and 12 YTA students who deliver behaviour change campaigns to their peers over the course of the academic year. Campaign initiatives can include themed assemblies, walking and cycling competitions, creative workshops, films and community events.

### 9.3.7 School active travel maps

Active travel maps are available for all schools in the borough to help pupils and parents choose sustainable, safe and healthy ways to travel to school. The maps show the sustainable travel options available to each school and are tailored to include:

- local public transport facilities (e.g. tube and train stations, and bus route information) – showing which bus routes travel on roads close to the school.
- 5 and 10 minute walking zones – showing approximate 5 and 10 minute walking distances from the school site.
- cycling route information – roads are colour-coded to Bikeability training and confidence levels to enable cyclists to plan routes according to individual abilities.



The maps can be used by anyone travelling to the school including pupils, parents, staff and visitors.

## 9.4 Road Safety objective 4: Conduct road user safety campaigns and road safety training courses aimed at reducing the number of collisions on the roads

Road safety campaigns are aimed at encouraging safe and considerate driving, at appropriate speeds. Road safety training provided in Harrow educates all road users on the shared responsibility for safer cycle and motorcycle journeys. Certain groups are at greater risk of more severe casualties and to address this specific road safety campaigns and training are aimed at different groups - older people, motorcyclists, cyclists and school pupils.

### 9.4.1 Road safety week

Many schools in Harrow take part in Road Safety Week. This is an opportunity to engage the community, launch campaigns, and work towards safer streets – using resources provided by the road safety charity Brake. During road safety week, schools hold special assemblies addressing road safety and often the school youth travel ambassadors talk about the risks they face on the road and what they can do to stay safe. Pupils are encouraged to write a road safety



pledge and post a “selfie” holding the sign on social media to help spread the road safety message. Typical pledges are 'look out at junctions' to 'take headphones out when crossing the road'.

#### *9.4.2 Motorcycle safety training*

To improve motorcycle safety standards, the borough promotes Motorcycle Industry Association (MCIA) accredited training providers to motorcyclists to undertake Compulsory Basic Training. BikeSafe and ScooterSafe vouchers are offered for subsidised courses delivered by local Motorcycle Industry Association (MCIA) accredited training providers.

These are available to all those who live, study or work in the borough. This enables participants to undertake a Rider Skills Day course – designed to improve riding ability and safety on the roads. The courses offer expert advice and observed rides on urban and rural roads. Information on other rider assessment courses is also cascaded to relevant stakeholders.

The borough also cascades information on 1-2-1 motorcycling skills and ‘Beyond CBT (Compulsory Borough Training)’ to relevant stakeholders i.e. fast food delivery restaurants, tyre fitters, dealers.

#### *9.4.3 Motorcycle road safety campaigns*

Motorcycle safety is encouraged through a combination of campaigns and safer riding training. With P2Ws collisions typically occurring at junctions and in situations where other vehicles are performing manoeuvres such as overtaking and U-turns, the borough has used lamppost banners to portray road safety messages to raise awareness about the vulnerability of motorcyclists. These have been displayed at specific motorcycle casualty hotspots within the borough and aimed to be visually striking, concise, easily interpretable and reminding motorists to watch out for motorcyclists.



#### *9.4.4 Older people road safety*

Community workshops are delivered for older people to explore ways of making journeys safer for older and vulnerable road users. These workshops aim to engage older road users in discussions about road safety, raise awareness in age related decline in relation to road safety, increase confidence for participants, provide opportunities for participants to be heard and provide further information on relevant road safety resources available in the borough. Feedback from courses run has stated that it has made participants think more about their own actions when out and about and in some cases modify their own actions.

#### *9.4.5 Driver behaviour*

Encouraging improved driver behaviour is necessary if road accidents are to decline. Many campaigns to encourage improved driving standards are national. However Harrow has run visual

campaigns during the festive period and major sports events such as the UEFA World Cup and Euro football competitions to educate motorists about the dangers of drink and drug driving.

In addition to the drink driver campaign, Harrow has run a visual campaign 'Clear your windscreen'. This was publicised in the winter to highlight the dangers of driving with a frosty windscreen. Harrow is working jointly with other boroughs to launch a new mobile phone campaign to improve road safety.

## 9.5 Delivering the road safety objectives

The long-term road safety targets for road safety that were agreed as part of LIP3 are shown in Table 2.

**Table 2: Long term road safety targets**

Long term target	Latest available data	Target	Year
Eliminate all deaths and serious injuries from road collisions from London's streets	433 collisions in Harrow in 2017	0	2041
Reduce the number of people who are killed or seriously injured by 70 per cent against 2010-14 levels	69 KSIs in 2017	24	2030
Reduce the number of people who are killed or seriously injured by 65 per cent against 2005-09 levels	69 KSIs in 2017	38	2022

Table 3 shows the targets that will be used to measure the delivery of the road safety objectives.

**Table 3: Road safety targets to deliver objectives**

Road safety objectives	Targets to monitor progress	Current status	Target and year
Use engineering and enforcement measures to improve borough road safety	Introduce countdown crossings to 20% of all controlled crossings	10% of all controlled crossings are currently countdown crossings.	20% by 2021/22
	Reduce pedestrian KSIs to 15 KSIs by 2022	28 pedestrian KSIs in 2017	15 pedestrian KSIs in 2022
Provide cycle training to Bikeability standards for children and adults who work, study or live in the borough	Reduce number of vulnerable road user KSIs to 28 by 2022	50 vulnerable road user KSIs in 2017	28 vulnerable road users in 2022
	Provide cycle training for over 1500 children and over 100 adults	176 adults trained in 2018/19  1026 children trained in 2018/19	114 adults in 2019/20  1590 children in 2019/20

Road safety objectives	Targets to monitor progress	Current status	Target and year
Provide road safety education events in schools and road safety support for pre-schoolers to develop traffic awareness and road safety skills	Provide theatre in education in 50% of all secondary schools  Deliver practical pedestrian training to at least 40% of all primary schools  Deliver road safety presentations to at least 50% of primary schools  Deliver appropriate road safety interventions to at least 40% of all colleges/6 <sup>th</sup> forms	60% of secondary schools receiving theatre in education 40% of schools receiving practical pedestrian training  50% of schools receiving road safety presentations  60% of colleges/6 <sup>th</sup> forms receiving young motorist intervention	70% by 2021/22  50% by 2021/22  60% by 2021/22  70% by 2021/22
Conduct road user safety campaigns and road safety training courses aimed at reducing the number of collisions on the roads	Design and deliver at least 2 targeted campaigns annually  Provide older people community workshops at least 5 times per year	2 campaigns delivered in 2018-19 10 delivered in 2017/18	2 campaigns per annum 5 workshops per annum

## 10. Funding the road safety action plan

Table 4 shows the key funding sources used for Harrow road safety initiatives.

Table 4: Key funding source for road safety initiatives

Actions	TfL LIP programme funding	TfL strategic funding	Section 106 or CIL	Harrow funded	Other
<b>Road safety objective 1: Use engineering and enforcement measures to improve borough road safety</b>					
20mph zones	✓				
Local safety schemes	✓				
Local safety parking schemes	✓				
School travel plan engineering measures	✓				
Speed limit reviews	✓				
Community roadwatch	✓				
Speed activated signs	✓				
Pedestrian crossings	✓				
Countdown timers	✓				
Enforcement cameras	✓				
<b>Road safety objective 2: Provide cycle training to Bikeability standards for children and adults who work, study or live in the borough</b>					
Bikeability training and courses	✓				
Women only cycle training	✓				
Balance and ride courses for children	✓				
<b>Road safety objective 3: Provide road safety education events in schools and road safety support for pre-schoolers to develop traffic awareness and road safety skills</b>					
Children's Traffic Club					
Theatre in education	✓				
Safety and Citizenship					
Safe Drive Stay Alive					
Junior travel ambassadors					
Youth travel ambassadors					
School active travel maps	✓				
<b>Road safety objective 4: Conduct road user safety campaigns and road safety training courses aimed at reducing the number of collisions on the roads</b>					



Actions	TfL LIP programme funding	TfL strategic funding	Section 106 or CIL	Harrow funded	Other
Road safety week					
Motorcycle training	✓				
Motorcycle road safety campaigns					
Older people road safety					

## 11. Road Safety Action Plan

Table 5 shows the borough road safety action plan and how the agreed borough LIP3 policies fit with the new road safety objectives. The table also shows the outputs to be delivered relating to each policy.

**Table 5: Road safety action plan**

LIP3 policies (LIP3 policy reference number)	Outputs	Timescale
<b>Road safety objective 1: Use engineering and enforcement measures to improve borough road safety</b>		
Adopt a Vision Zero approach towards eliminating all road deaths and serious injuries by 2041 (RS1)	Reduced KSIs on Harrow roads Local Safety Schemes to be introduced in 2019/20: Oxhey Lane / Uxbridge Road – Harrow Weald, Alexandra Avenue – Rayners Lane, Pinner Road / Station Road – North Harrow Further locations will be selected based on agreed criteria	Ongoing
Employ a road danger reduction approach to design, using the streets toolkit for designers, Road Safety Audit, and Healthy Streets Check for Designers (RS2)	Reduced KSIs on Harrow roads	Ongoing
Prioritise schemes that maximise casualty reduction predictions and pose the highest risk to vulnerable road users and in particular the numbers killed and seriously injured per annum for the available finance (RS3)	Reduced KSIs on Harrow roads Local Safety Schemes to be introduced in 2019/20: Oxhey Lane / Uxbridge Road – Harrow Weald, Alexandra Avenue – Rayners Lane, Pinner Road / Station Road – North Harrow Further locations will be selected based on agreed criteria	Ongoing
Ensure that the safety concerns of all road users, including pedestrians, cyclists, horse riders and those in motorised vehicles are considered when developing any traffic scheme (RS4)	Reduced vulnerable road user KSIs for on Harrow roads	Ongoing

<b>LIP3 policies</b> (LIP3 policy reference number)	<b>Outputs</b>	<b>Timescale</b>
Prepare a programme of 20 mph zones in the borough and incorporate these into schemes for future TfL funding (RS5)	Increased walking and cycling and reduced KSIs. 20mph zones at the following locations: Clitheroe Avenue, Rayners Lane, Kingshill Avenue – all to be introduced by 2019/20. Further locations will be selected based on agreed criteria.	Ongoing
Increase the extent of 20mph roads in the borough and expand the existing 20mph zones to cover more areas where people live, work and shop and where children travel to school (RS6)	Increased walking and cycling and reduced KSIs. 20mph zones at the following locations: Clitheroe Avenue, Rayners Lane, Kingshill Avenue – all to be introduced by 2019/20. Further locations will be selected based on agreed criteria.	Ongoing
Work with the parking service and police to enforce and promote safe driving and parking in school zones (RS7)	Less driving for school journeys. Modal shift for school journeys. Improved air quality in school zones.	Ongoing
Where possible use engineering solutions to minimise the need for additional road safety enforcement (RS8)	Increased use of chicanes, road humps and kerb buildouts	Ongoing
Maintain an effective method of accident monitoring for the borough (RS9)	More targeted approach to addressing road accidents	Ongoing
Use accident statistical data to recognise trends and deliver targeted educational and engineering initiatives, with a focus on roads with a higher risk of motorcyclist collisions (RS10)	More targeted approach to addressing road accidents, particularly those involving motorcyclists	Ongoing
Improve the safety of street design by following the design guidance set out in TfL's Urban Motorcycle Design Handbook (RS15)	Less motorcycle casualties. Better street design	Ongoing
Carry out road safety audits of all new significant traffic and highway proposals (RS18)	Reduced road casualties on all Harrow roads.	Ongoing
Work with schools to reduce the number of school trips made by car and liaise with schools regarding suggested highway works required in school locality (S11)	Improved air quality around schools Reduced car mode share of school journeys	Ongoing
Work with the Metropolitan Police in using their powers of enforcement to deal with illegal cycling on pavements and footpaths (RS22)	Reduced cycling on pavements	Ongoing
<b>Road safety objective 2:</b> <b>Provide cycle training to Bikeability standards for children and adults who work, study or live in the borough</b>		

<b>LIP3 policies</b> (LIP3 policy reference number)	<b>Outputs</b>	<b>Timescale</b>
Adopt a Vision Zero approach towards eliminating all road deaths and serious injuries by 2041 (RS1)	Reduced KSIs on Harrow roads Local Safety Schemes to be introduced in 2019/20: Oxhey Lane / Uxbridge Road – Harrow Weald, Alexandra Avenue – Rayners Lane, Pinner Road / Station Road – North Harrow Further locations will be selected based on agreed criteria	Ongoing
Provide and promote cycle training for children and adults who work, study or live in the borough (S4)	Increase in number of adults and children cycling Reduced car use, improvements to air quality, health and reduced congestion	Ongoing
<b>Road safety objective 3: Provide road safety education events in schools and road safety support for pre-schoolers to develop traffic awareness and road safety skills</b>		
Adopt a Vision Zero approach towards eliminating all road deaths and serious injuries by 2041 (RS1)	Reduced KSIs on Harrow roads Local Safety Schemes to be introduced in 2019/20: Oxhey Lane / Uxbridge Road – Harrow Weald, Alexandra Avenue – Rayners Lane, Pinner Road / Station Road – North Harrow Further locations will be selected based on agreed criteria	Ongoing
Use accident statistical data to recognise trends and deliver targeted educational and engineering initiatives, with a focus on roads with a higher risk of motorcyclist collisions (RS10)	More targeted approach to addressing road accidents, particularly those involving motorcyclists	Ongoing
Work with TfL to ensure take-up of Children's Traffic Club, a London road danger reduction education resource for pre-schoolers (S6)	Reduced child road casualties	Ongoing
Work with TfL to ensure take-up of the Safety and Citizenship pre-transition safe and responsible behaviour sessions for Year 6 pupils (S7)	Reduced child road casualties	Ongoing
Work with TfL to ensure take-up of the Junior Travel Ambassador and Youth Travel Ambassador schemes, addressing transport and road safety issues in schools (S8)	Reduced school pupils involved in road casualties	Ongoing

LIP3 policies (LIP3 policy reference number)	Outputs	Timescale
Provide road safety education events at schools and colleges throughout the borough (S9)	Reduced casualties for pupils on school journeys	Ongoing
<b>Road safety objective 4: Conduct road user safety campaigns and road safety training courses aimed at reducing the number of collisions on the roads</b>		
Adopt a Vision Zero approach towards eliminating all road deaths and serious injuries by 2041 (RS1)	Reduced KSIs on Harrow roads Local Safety Schemes to be introduced in 2019/20: Oxhey Lane / Uxbridge Road – Harrow Weald, Alexandra Avenue – Rayners Lane, Pinner Road / Station Road – North Harrow Further locations will be selected based on agreed criteria	Ongoing
Use accident statistical data to recognise trends and deliver targeted educational and engineering initiatives, with a focus on roads with a higher risk of motorcyclist collisions (RS10)	More targeted approach to addressing road accidents, particularly those involving motorcyclists	Ongoing
Educate road users on the shared responsibility for safer cycle and motorcycle journeys, through driver and motorcyclist/cyclist skills training and communications (RS12)	Less motorcyclist and cycling casualties	Ongoing
Promote Motorcycle Industry Association (MCIA) accredited training providers to motorcyclists looking to undertake Compulsory Basic Training (RS13)	Less motorcyclist casualties	Ongoing
Provide BikeSafe vouchers for subsidised courses delivered by local Motorcycle Industry Association (MCIA) accredited training providers (RS14)	Less motorcyclist casualties	Ongoing
Encourage safe and considerate driving, at appropriate speeds, as part of travel awareness and road safety education campaigns and review existing speed limit to ensure they are appropriate to the location (RS16)	Less road casualties	Ongoing
Deliver appropriate road safety interventions and resources for road users aged 60+ by targeting community groups, day centres and social clubs, facilitating bespoke workshops and presentations and providing road safety literature (RS19)	Less road casualties for those aged 60+ using various modes of transport	Ongoing



## GLOSSARY

ANPR	Automatic Number Plate Recognition
CTC	Children's Traffic Club
JTA	Junior Travel Ambassador
LIP	Local Implementation Plan
MCI	Motorcycle Industry Association
MTS	Mayor's Transport Strategy
P2W	Power two wheelers
PSHCE	Personal, Social, Health and Citizenship Education
SAS	Speed Activated Signs
SEND	Special Educational Needs and Disability
STP	School Travel Plan
TRL	Transport Research Laboratory
YTA	Youth Travel Ambassadors

## Appendix A - Harrow's transport objectives

1. Improve the public realm through the introduction of healthy streets and liveable neighbourhoods to better enable active and safer travel particularly for pedestrians and cyclists thereby reducing congestion and improving public health and local air quality
2. Adopt a Vision Zero approach towards eliminating all road traffic deaths and serious injuries by 2041 and focus on reducing the number of motorcycle casualties across the borough
3. Increase the number of people cycling in the borough in order to improve public health, improve air quality, reduce congestion and to reduce the impact of climate change
4. Improve freight servicing and delivery arrangements to reduce congestion and delays on the network and consider other types of freight delivery options that could reduce traffic congestion
5. Encourage the uptake of more sustainable modes of travel including travel for those with mobility difficulties and dissuade use of private cars through active travel initiatives, delivering additional healthy routes to school, promotion of cycle hire schemes, the use of parking and permit policies and prioritising road space to walking and cycling to improve the environment.
6. Encourage the uptake of ultra-low emission vehicles instead of fossil fuel powered vehicles through the use of promotional activities, increased Ultra Low emission zones, neighbourhoods of the future, and greater availability of electric charging facilities, thereby improving air quality, reducing traffic noise and reducing CO<sub>2</sub> emissions throughout the borough
7. Support improved orbital transport links across the borough and between outer London centres to provide wider access to employment opportunities and to enable journeys currently made by car to be made by sustainable forms of transport and thereby improve the environment
8. Improve transport connectivity throughout the Harrow and Wealdstone Opportunity Area and particularly between Harrow-on-the-Hill station/ Harrow bus station and Harrow & Wealdstone station
9. Ensure that the vitality of all town centres are supported through good transport links prioritising sustainable modes of transport
10. Improve public transport accessibility, support the expansion of bus and rail services throughout Harrow and in particular, support increased bus priority to deliver a more reliable, faster and more accessible public transport experience
11. Prioritise sustainable travel improvements for all new developments to support population growth and housing needs identified in the London Plan and local development framework
12. Prioritise the transport needs of the Harrow and Wealdstone Opportunity Area
13. Keep the transport network in good condition and serviceable to encourage the use of sustainable transport modes

## Appendix B – Effectiveness of Local Safety Schemes

Scheme Name	Date scheme implemented	Before implementation			After implementation		
		Killed	Seriously injured	slights	Killed	Seriously injured	slights
George V - traffic signals	Sep-10	0	2	11	0	0	1
Northolt Road	Dec-10	0	1	36	0	2	7
Uxbridge Road to Hatch End	Apr-11	2	6	12	0	0	2
Old Redding	Dec-13	0	5	24	0	1	5
Old Church Lane	Jan-14	0	0	6	0	0	2
Marsh Road / High Street	Feb-14	0	3	6	0	0	9
<b>TOTAL</b>		<b>2</b>	<b>17</b>	<b>95</b>	<b>0</b>	<b>3</b>	<b>26</b>

This shows a reduction in KSIs of 84% following implementation of local safety schemes and a reduction of 75% in all casualties.