

Loss prevention standards

Protecting Vulnerable Road Users

Good practice guidance and solutions to assist motor fleets in protecting their drivers and preventing road traffic collisions involving vulnerable road users.

Protecting Vulnerable Road Users



Introduction

As we begin to return to our normal routines and more people are taking to the roads, the volume of traffic will increase, as will the number of vulnerable road users (VRU) on the roads. We anticipate that it will take a little time for people to familiarise themselves with driving, particularly those that will be resuming longer journeys and those commuting and travelling in busy urban environments.

VRU is a collective term used to describe pedestrians, in particular children, the elderly, cyclists, motor cyclists and horse riders. The reason they are defined as vulnerable is when they are on the road they are not protected by a vehicle and its safety features and are less visible to drivers, which increases the likelihood of being injured or killed if involved in a road traffic collision.



All road users, including VRU, have a responsibility to use roads as safely as possible. Typical examples would be cyclists using lights during the hours of darkness and pedestrians using pedestrian crossings where available. Ultimately drivers have a duty of care to all road users and specifically to VRU.

There are practical steps that can be taken by motor fleet operators in order to reduce the likelihood of a VRU collision.

Risk Assessments

Businesses need to establish the hazards associated with driving for work including how to protect VRU. A driving at work risk assessment should consider the vehicle, driver, journey and activities associated with driving for work, to ensure robust management of work-related road risks is in place that will assist in protecting your driver, and other road users as well as preventing road traffic collisions. The protection of VRU will need to be considered across all of these elements.

Vehicle

When selecting vehicles for purchase, lease or hire there are many considerations for Fleet Managers from suitability for the activities undertaken, routes completed, loads carried, weight savings, safety features, ergonomics, environmental impact and costs. The driver's visibility and blind spots should also be high on the selection criteria as these will assist in protecting the driver and VRU.

Progress in technology for cars and commercial vehicles has seen improved safety features such as Autonomous Emergency Braking (AEB) and Advanced Driver Assistance Systems (ADAS), features which in time will lead to autonomous vehicles. We are now starting to see in commercial vehicles the introduction of lower cabs, glazed doors and increased glazing in the cab providing drivers with eye level contact with VRU, enabling engagement and awareness with other road users.

For car fleets, the European New Car Assessment Programme ([Euro NCAP](#)) safety ratings now include VRU Protection, which considers how well cars protect VRU with whom they might collide. In these tests, the potential risks of injuries to a pedestrian's head, pelvis, upper and lower leg are assessed. Cars which perform well can gain additional points if they have an AEB system which recognises pedestrians and cyclists. These scores alongside those for Safety Assist and Occupant Protection can provide an indication of the level of protection for VRU.

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Vehicle Blind Spots

When looking to protect drivers and VRU, the driver's visibility and reduction of blind spots is paramount. Good visibility will enable drivers to safely drive and complete manoeuvres, allowing them to see other road users and hazards on the roads and enabling the driver to respond accordingly. When we look at visibility in vehicles it is considered in the following categories:

- Direct vision – areas visible to the driver through the vehicle windows
- Indirect vision – areas visible to the driver through the use of mirrors
- Blind spot – areas around the vehicle that are not visible to the driver normally due to the structure of the vehicle. This can be at the front, rear and side of the vehicle

Businesses need to consider these three elements not only when choosing a vehicle, but also when planning routes and considering additional retrofitted equipment.

Blind Spot Devices

Mirrors – All vehicles

As many collisions involving VRU and stationary objects occur nearside, a focus on the use of this mirror is key for any driver and should be monitored during in-vehicle assessments, and appropriate awareness raised with all drivers.

To address indirect vision in vehicles over 3.5 tonnes, European Directives require mirrors, camera monitors or devices to be fitted to observe the traffic area adjacent to the vehicle. Class IV wide angle mirrors or immediately in front of the vehicle and Class V close proximity mirrors directly beside and below the passenger door are required.

For vehicles over 7.5 tonnes and manufactured after 2007 they must also be fitted with a Class VI mirror for the blind spot in front of the vehicle. For further information provided by the Driver and Vehicle Standards Agency, [click here](#).

In Vehicle Cameras – All Vehicles

A range of cameras can be installed to assist in detecting VRU and stationary objects to assist the driver, as well as advising how far away a stationary object is when reversing.

In commercial vehicles the use of scanning cameras, reversing cameras as well as 360-degree cameras which provide the driver with a surround view of the vehicle in real-time on their in-cab monitor, can greatly assist the driver.

However, drivers must not rely solely on monitors, but also use their mirrors to maintain full visibility around their vehicle.

Proximity Scanning Cameras - LGV and HGV

Proximity scanning systems can prevent and/or minimise collisions with VRU and stationary objects. These systems sense when VRU or stationary objects are in close proximity either when the vehicle is travelling at 20 mph or less, when undertaking slow manoeuvres, reversing or when turning left. The detection system can alert both the driver and the cyclist or pedestrian to the potential danger of being in close proximity to the vehicle. An audible and visual in-cab warning can advise the driver which sensors are activated and the proximity of the obstacle, enabling them to respond accordingly.

Side Guards – LGV and HGV

Side underrun protection guards reduce the likelihood of injury to pedestrians, cyclists and motorcyclists when struck by a vehicle travelling in a forward direction. They are fitted to deflect and to stop people going underneath the sides of the vehicle. Additional information on vehicle side guards is [available here](#).

Audible Alerts – Van (reversing alert), LGV and HGV

When vehicles are turning left or reversing, an audible alarm and/or message can advise pedestrians and cyclists of the driver's intention to turn or reverse. Drivers should not rely on the alarms being followed by other road users as they can often be ignored or even not heard before making a manoeuvre.

Signage – LGV and HGV

Display pictorial stickers and markings on the rear of the vehicles to inform and alert other road users of the hazards when they are in proximity to the vehicle.

Fresnel Lenses – LGV and HGV

A Fresnel Lens is a clear, thin plastic lens fitted to the inside of the **vehicle's** passenger door window that provides the driver with a downward view close to and around the **vehicle's** passenger door mirror blind spot area. This assists with identifying VRU within the blind spot area. The correct fitting of these devices, maintaining the right position and cleanliness are key, as if not maintained they may impact on their safe use.

Direct Vision Standard (DVS)

The Mayor of London in conjunction with Transport for London (TfL) has developed the world's first [Direct Vision Standard and Safety Permit Scheme](#) for lorries over 12 tonnes, entering or operating in Greater London from October 2020. The DVS was introduced as there are significantly more collisions between LGVs and cyclists in London than most regions of the country and double the amount of the total frequency for Great Britain. It was created to improve the safety of all road users, particularly VRU by awarding a vehicle star rating, based on how much an LGV driver can see, directly through the cab windows. TfL are also lobbying the European Commission for changes in international vehicle safety and design regulations, to push for long term improvements to future LGV fleets. For further details please see the Aviva Loss Prevention Standard LGV Safety Permit and Direct Vision Standard.

Enforcement of the standard was introduced from 1 March 2021 to give businesses more time to meet the new standards in the wake of the disruption caused by the COVID-19 pandemic.

Journey and Route Planning

Review your journey and route planning and where possible avoid those areas where there is a high likelihood of incidents involving VRU such as schools, residential areas and town centres. Should these journeys be necessary then adequate precautions should be put in place, for example, using the right vehicle for the job, the use of vehicle safety technology, and adequate training and education for drivers operating in these areas.

Driver Awareness

It is essential to provide those who drive for work with relevant information, instruction and training on how to safely operate on the road and share this space with others. During employee induction and on a regular basis, ensure up to date information and appropriate guidance is provided which is relevant for your business operations.

Road Traffic Collisions (RTC) involving VRU are more likely to occur when turning left, pulling away at junctions, changing lanes or overtaking and manoeuvring including reversing. It is important to communicate and engage with drivers to raise their awareness of the potential risks, such as through the use of toolbox talks and safety campaigns, for example:

- Understanding who are the most vulnerable on our roads and why
- Raising awareness of the changes to the Highway Code relating to the Hierarchy of Road Users and their individual responsibilities for the safety of all other road users
- Effective use of the current vehicle's safety technology that is provided including its limitations
- Potential hazards related to the changes in road layouts such as the increase in cycle lanes and shared pedestrian spaces, etc.
- To ensure that drivers are aware of the risks of conducting slow speed manoeuvres. This includes carrying out a dynamic risk assessment, ensuring effective all round observations, the checking of blind spots and making sure that it is safe prior to commencing any manoeuvre

Collisions involving slow speed manoeuvres are on the increase across many fleets. These low costs/high frequency events can cause large financial costs to a business over a sustained period of time and can make the potential of a more serious incident more likely. Using vehicle safety technology correctly supported with appropriate training can reduce the numbers of such incidents.

E-scooters

In this ever changing environment new challenges appear, for example E-scooters. Since August 2020 E-scooter trials have been taking place in the UK, and during these trials scooter users will be able to legally use the UK road network. [Click here](#) for further information produced by the Department for Transport on E-scooter trials.

There are a number of dangers associated with E-scooters that drivers need to be aware of. They are less visible, less stable and less able to cope with poor road surfaces, weather conditions and other road hazards. Standing scooters are inherently unstable, and are more difficult to control with narrow bars, small wheels and tyres. They can struggle to deal with rough road surfaces, some even have none-pneumatic solid tyres, and many cheaper E-scooters can be badly designed and manufactured, with poor brakes and inadequate deck height.

Visibility of scooters particularly at night and in poor weather conditions can be limited, and this is partially due to the rear tail-light area being small and having less room to fit an appropriate light. Also, a rear light would be positioned just a few inches above the ground, making it difficult for drivers to see, particularly from the cab of larger vehicles.

Driver Behaviour Monitoring

It is important to proactively manage driver behaviour and the utilisation of vehicle safety technology will greatly assist in this process. It will be able to identify those drivers who demonstrate poor driving behaviour, enabling businesses to intervene with targeted coaching and additional trend development. Where incidents have been avoided, the footage could be developed into an in-house training video. Such a process keeps the profile and presence of in-vehicle cameras raised and may improve driving behaviours, resulting in a reduction of RTC.

Collision and Claims Data Analysis

By regularly analysing the outcomes of your incident investigations and your claims data you will be able to identify incident trends and their underlying and root causes. This approach will support the development of a robust driver risk management strategy, continually improve the management of motor risk and help to deliver a reduction in the number of incidents.

Compliance Schemes

Many commercial fleet operators now seek accreditation through voluntary schemes such as the [Fleet Operator Recognition Scheme](#) (FORS), [Construction Logistics and Community Safety](#) (CLOCS) and [Van Excellence](#). These schemes encourage adoption of best practice, including training, the adoption of safer vehicles and modern technology, all of which are designed to reduce the risk and impact of VRU collisions.

Engaging the Community

If there are roads local to your organisation's sites where you think VRU may be particularly at risk or where local people have expressed concerns, you could take an active part in engaging with local community bodies as part of the **company's Corporate and Social Responsibility policy (CSR)**. **Brake, the UK's largest road safety charity**, host [Road Safety Week](#) each November and provide practical advice and promotional material to help organisations promote road safety within the local community.

Checklist

A Protecting Vulnerable Road Users Checklist is presented in Appendix 1 which can be tailored to your own organisation.

Specialist Partner Solutions

Aviva Risk Management Solutions can offer access to a wide range of risk management products and services via our network of Specialist Partners who are reputable companies offering agreed discounted rates for Aviva customers.

For more information please visit:

[Aviva Risk Management Solutions – Specialist Partners](#)

Sources and Useful Links

- [The Highway Code: 204-225 Road Users Requiring Extra Care](#)

Additional Information

Relevant Loss Prevention Standards include:

- LGV Safety Permit and Direct Vision Standard

To find out more, please visit [Aviva Risk Management Solutions](#) or speak to one of our advisors.

Email us at riskadvice@aviva.com or call 0345 366 6666.*

*Calls may be recorded and/or monitored for our joint protection.

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Appendix 1 – Protecting Vulnerable Road Users Checklist



Location	
Date	
Completed by (name and signature)	

	Protecting Vulnerable Road Users	Y/N	Comments
	Policy and Procedures		
1.	Have you identified control measures to protect your drivers and VRU in your driving at work risk assessments?		
2.	Do you include protecting VRU in your driving at work policy?		
3.	Have you communicated your driving at work policy to all relevant employees?		
4.	Do you include safety guidance for your drivers on protecting VRU in the following driver handbooks: <ul style="list-style-type: none"> • Commercial vehicles? • Company cars? • Grey fleet? • Cycle for work schemes? 		
5.	Does your drivers' handbook safety guidance on VRU include: <ul style="list-style-type: none"> • Responsibilities to other road users including VRU? • Being diligent to VRU in town centres, residential areas and near schools? • Importance of checking blind spots? • Undertaking safe manoeuvres? • Journey planning? • Changes to Highway Code? • Awareness of new road layouts? • Awareness of E-scooters? 		
6.	Have you received written confirmation that your employees have read and understood the company driver handbooks?		
	Route Planning		
7.	When planning your commercial vehicles' routes and delivery points, do you take into consideration how you can reduce the potential interaction with VRU?		

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	Protecting Vulnerable Road Users Contd.	Y/N	Comments
	Driver Training and Awareness		
8.	<p>Do you provide training and awareness to drivers about VRU? This can include:</p> <ul style="list-style-type: none"> • Importance of safe manoeuvring? • Distracted driving? • Dynamic risk assessments? • How to manoeuvre safely? • Importance of safe separation distance when overtaking any VRU? • Correct use of safety technology? • Changes to the Highway Code? • Increased risk of E-scooters? 		
	Vehicle Selection		
9.	<p>When purchasing/leasing commercial vehicles are the following features included as part of the selection process:</p> <ul style="list-style-type: none"> • Minimising blind spots? • Blind spot minimising technology? • Protecting VRU? 		
10.	When hiring commercial vehicles are minimising blind spots and protecting VRU considered?		
11.	<p>When purchasing/leasing company cars/vans are the following features included as part of the selection process:</p> <ul style="list-style-type: none"> • Minimising blind spots? • Blind spot minimising technology? • Features designed to minimise harm to VRU (Cars Euro NCAP rating, e.g., VRU Protection rating and Safety Assist score)? 		
	Road Traffic Collision Data		
12.	Are all RTC investigated?		
13.	<p>Is the RTC investigation data analysed for:</p> <ul style="list-style-type: none"> • Trends? • Effectiveness of training? • Vehicle appropriateness for the route? • Correct use of blind spot aids and technology? 		

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	Protecting Vulnerable Road Users Contd.	Y/N	Comments
	Engaging the Community		
14.	Do you engage with local community road safety awareness schemes?		
15.	Are you involved in the Exchanging Places schemes to raise VRU awareness of blind spots in commercial vehicles?		
16.	Additional comments:		

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