

RISK ASSESSMENT NOTE IN RELATION TO `MANAGING THE ACCIDENTAL OBSTRUCTION OF THE RAILWAY BY ROAD VEHICLES` - VICTORIA ROAD WEST, HEBBURN, SOUTH TYNESIDE

We have reviewed the information received, including the Department for Transports 'Managing the accidental obstruction of the railway by road vehicles' 2003 standards document. The document covers all scenarios for rail tracks and roads of all designations with the focus on reviewing measures in place to prevent accidental incursion of vehicles on to railways. The document focuses on the high risk issues of motorways and main roads and their relationship with railways along with allowing risk assessments to be completed on a site specific basis. We have extracted all the principles of safety and what is relevant to secondary estate roads and parking courts within our site.

1.2 Ranking sites to assess comparative risk

All sites should be inspected and a record of their comparative risk made using a consistent scoring sheet for each road/rail interface (forms 1a, 1b or 2). This will provide an audit record.

The scoring system highlights the highest risk areas. The assessment then considers the potential sources of the risk and the appropriate treatment (form 3).

4 **section one**
The process of managing road rail interfaces

There are three factors that combine to give the level of risk at a particular location – the frequency of vehicles leaving the road (average number of occasions a year), the probability of the containment failing to prevent the vehicle reaching the railway line, and the consequences in terms of death and injury if a vehicle reaches the line. The combination of high probability of a vehicle reaching the rail line, and a high likelihood of injury if this occurs, leads to the highest level of risk ranking. The risk matrix at Figure 1.1 illustrates this.

Fig 1.1 Risk matrix – sites for treatment likely to lie in shaded area

Frequency of reaching railway	Very high					
	High					
	Medium					
	Low					
	Very low					
		Very low	Low	Medium	High	Very high
		Rail consequences				

As you will see the above table taken from the document suggest the level of risk to be managed. The Victoria Rd site, as designed, would suggest the lowest possible `frequency of reaching the railway` and is therefore deemed a very low risk and one which would be of the lowest risk order.

Risk Assessment

The Health and Safety Executive (HSE) state that a risk assessment must be as follows;

To do a risk assessment, you need to understand what, in your business, might cause harm to people and decide whether you are doing enough to prevent that harm. Once you have decided that, you need to identify and prioritise putting in place, **appropriate and sensible control measures**.

The Victoria Road West development demonstrates seven instances where vehicles are in the proximity of the rail line. Of those; Two are parking bays directly off an adopted road turning head, three are the end of private shared drives and two are parking bays within private shared drives. All of the instances are within a designed residential scheme with low speed roads and convoluted access/routes to maintain low speed.

Key indicators within the Department for Transport's document are items such as;

1.3 Assessing scope for treatment

The initial risk scoring identifies the worst potential outcome at each site. So the first stage of assessing treatment (Chapter 4) is to work out at which part of the site the worst outcome might occur.

Vehicles usually leave the road in one of the following situations:

- a driver fails to negotiate a bend or is tired or inattentive. In the extreme case, a driver who has fallen asleep or is taken ill may make little attempt to recover the situation;
- a conflict between vehicles causes one to swerve or results in a collision. In the latter case speeds are likely to be reduced before leaving the road.

The engineer will need to judge whether vehicles are likely to leave the road at the site, and what the vehicle paths would be.

Information on the following factors should be considered:

- road gradient – general, and local to bridge – and its effect on visibility;
- presence and severity of bends;

- likely excess speed of traffic (in any circumstances);
- potential conflicts;
- warning signs or road markings;
- unstimulating environments that might exacerbate problems of driver fatigue;
- potential influence of traffic at nearby junctions;
- width and structure of the verge/hard shoulder, to assess the potential effect on vehicles;
- presence of, and further scope for, safety fencing; and
- any provision for pedestrians and cyclists nearby.

The following notes have looked at the key points above in order to demonstrate how the Victoria Road west site takes on board the issues and the level of risk associated.

HGV's - there are only two of the seven instances where the roads are designed to be adopted and accommodate HGV's, the only HGV's to use the proposed roads would be delivery wagons and refuse vehicles. The design and set up of the road would prevent speed from being built up and therefore the risk of conflict/issue is deemed to be extremely low. **- VERY LOW RISK**

Sleep deprivation - These parking spaces are the final destination of a vehicle and through a range of turnings and on site constraints. Bearing these in mind it is extremely unlikely for a driver to fall asleep at the point of being near to the proximity to the railway. **- VERY LOW RISK**

Gradients and levels - Although most instances use roads which will be falling away from the tracks, in the situation where a road is falling towards the tracks, these will not be severe gradients as the site does not warrant them and they would be avoided from a design perspective. The railway is at a level higher than the site currently. Again road speed and the shared drives access ways in this area is low risk traffic at very low speed. **- VERY LOW RISK**

Speed - These roads are secondary estate roads where traffic calming measures will have already been passed, speeds will be controlled. The set up and navigation of the sites road network does not provided the opportunity to allow drivers to gain speed. **- VERY LOW RISK**

Bends - The roads leading up to the tracks are short and so do not contain any severe bends or obstructions which would impact on visibility. **- VERY LOW RISK**

Conclusion

The above items and various scenarios have been looked at which the result of the risk assessment shows the possibility of accidental trespass on or adjacent to the railway to be of **very low risk**.

The road and parking bays themselves will be subject to a 100mm kerbface and the current boundary treatments consist of a fence with intermittent trees and landscaping which would provide more than adequate obstruction. As a complete measure to take aware any possible areas of concern and add a further level of comfort to the parties involved in these discussions we are proposing to install 100x100mm timber posts with birds-mouth railing set in concrete at all areas of concern. Combined this measure with the existing retaining walls, boundary fences and trees, this is a robust and satisfactory solution which is more than reasonably practicable for the extremely low level of risk involved.

I trust this helps you appreciate our position and the thorough risk assessment and thought process that has been followed but if you require any further information please do not hesitate to contact me

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