

Major Projects Vulnerable Road User Alignment Group

Heavy Vehicle Safety Equipment Specifications – Vulnerable Road User Safety

Subject of Paper	Heavy Vehicle Safety Equipment Requirements to fulfil Major Projects' Contractual Requirements
Revision Date	27/02/2018

Document Revisions and Approval

Rev	Date	Prepared by	Review by	Approved by
A (Draft)	22/01/2018	Working group	John Black	Jamie Ross
B (Draft)	20/02/2018	Working group	John Black	Jamie Ross
0	27/02/2018	John Black	Andrew Brooks	Jim Waller

Introduction

Contract conditions relating to the safety of Vulnerable Road Users (VRU) have recently been included in contracts for the construction of Major Government Projects in Victoria.

Vulnerable Road Users are defined as pedestrians, cyclists, and motor cyclists.

The contract conditions require:

1. Specialist VRU safety equipment to be fitted to heavy vehicles carrying out work on the Major Projects; and
2. Drivers of heavy vehicles working on the Major Projects to be trained in relation the safety of VRU.

Contractual inclusions differ slightly in each of the Government contracts however the intent is similar and is expressed below:

1. **Safe Vehicles- Specialist VRU Equipment**

ensure heavy vehicles used in the carrying out of contract activities:

- a. *have side under-run protection;*
- b. *have front, rear and side blind-spots eliminated or minimised through the use of direct and indirect vision aids, sensors and audible or visual driver alerts;*
- c. *have audible means of warning other road users of a left-turn manoeuvre; and*
- d. *have prominent signage on the vehicle warning cyclists and other road users of the dangers of manoeuvring past the inside of the vehicle or getting too close to the vehicle.*

2. **Safe People – Training**

Heavy vehicle drivers working on the Major Projects undertake training and continuous professional development covering the safety of VRU and on-road hazard awareness. The training is to include a mix of theoretical, practical and on the job training.

Major Project Owners, Major Project Construction Contractors and a number of Trucking Companies have collaborated with the intent to standardize the requirements for equipment to be fitted to vehicles. The collaboration has resulted in the formation of an Industry Working Group (“The Group”).

Members of The Group currently include:

1. Cross Yarra Partnership – Metro Rail Project Construction Contractor
2. CPB Contractors John Holland Joint Venture – West Gate Tunnel Project Construction Contractor.
3. Coleman Rail
4. Lantrak Pty Ltd – Trucking Company
5. Eastern Plant Hire – Trucking Company

Note: The criteria for training of drivers of heavy vehicles working on the Major Projects in relation the safety of VRU shall be addressed in a separate paper.

Specification

This document contains a consistent set of mandatory heavy vehicle safety requirements aimed at the safety of vulnerable road users which is recognised across industry, and which aim to fulfil the contractual requirements.

This guideline has been prepared by the Group, and has been reviewed and accepted by the client organisations being Melbourne Metro Rail Authority, Western Distributor Authority, Transurban (Project Co for WGT Project) on 20/02/18.

Implementation

Subject to the definitions and table below, all "Regular Heavy Vehicles" carrying out work on the major projects must meet the requirements of Safe Vehicle – Specialist VRU Equipment Items a) to d) above ("The VRU Requirements").

The table below provides a list of heavy vehicle types that are expected to be used on the Major Projects and identifies vehicle types that are exempt from The VRU requirements.

"Regular Heavy Vehicles", which require compliance to The VRU Requirements, are defined as:

- (a) All Heavy Vehicles removing excavated material (i.e. spoil removal).
- (b) All Concrete Mixer vehicles (e.g. concrete agitators).
- (c) All other Heavy Vehicles over 4.5 tonnes GVM which are not excluded in the table below, making five or more round trips in any 12 month period to any project worksites across any projects with these requirements.

In addition to the definition above, the table below shows the requirements applying to each type of vehicle, and those exempted.

Ex = Exempt

Vehicle Type (From ATA Technical Advisory Procedure – Description of truck configurations: http://www.truck.net.au/resource-library/tap-description-truck-configurations)	(a) Side Under Run Protection	(b) Front Blind Spot Elimination or Minimisation	(b) Side Blind Spot Elimination or Minimisation	(b) Rear Blind Spot Elimination or Minimisation	(c) Audible Left Turn	(d) Signage	(e) Training
Two Axle Rigid Trucks	1	2	2	2	3	4	5
Three Axle Rigid Trucks (including trucks towing dog trailers)	1	2	2	2	3	4	5
Four Axle Rigid Trucks	1	2	2	2	3	4	5
Five Axle Rigid Trucks	1	2	2	2	3	4	5
Single Articulated Vehicles (prime mover coupled to a single semi-trailer)	1	2	2	2	3	4	5
B-Doubles (prime mover coupled to 2 semi-trailers, connected by a B coupling)	1	2	2	2	3	4	5
Concrete Agitator Trucks	1	2	2	2	3	4	5
Front lift waste trucks	1	2	2	2	3	4	5
Non Destructive Digging Trucks	1	2	2	2	3	4	5
Traffic Attenuator Trucks	1	2	2	2	3	4	5
Water Trucks	1	2	2	2	3	4	5
Dog Trailers	Ex	Ex	Ex	Ex	Ex	4	5
Mobile Cranes	Ex	2	2	2	3	4	5
Short Term Rental Vehicles (see definition)	Ex	Ex	Ex	Ex	Ex	Ex	5

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Vehicles serving 3 rd Party sites	Ex	Ex	Ex	Ex	Ex	Ex	Ex
Hook Lift Waste Truck	1	2	2	2	3	4	5
Tilt trays	Ex	2	2	2	3	4	5
Irregular Loads (see definition)	Ex	Ex	Ex	Ex	Ex	Ex	Ex
Escorted Abnormal Indivisible Loads	Ex	Ex	Ex	Ex	Ex	Ex	Ex

Requirements:

1. Side Under Run Protection

Within 90 days of supplier contract award:

Side guards will be fitted to both sides of vehicles over 4.5 tonne GVM in accordance with the 'Australian Trucking Association Industry Technical Council Advisory Procedure - Side Under Run Protection' 2012. <http://www.truck.net.au/resource-library/tap-side-underrun-protection>

2. Blind spot elimination or minimisation

Within 90 days of supplier contract award, at least one of the following:

- Class V mirrors on bonneted vehicles and Class V & VI mirrors on Cab Over vehicles.
- Camera.
- Sensor/s and associated driver alert.

3. Audible means of warning road users of left-turn manoeuvre

Within 90 days of the specification being agreed and supply being available, or 90 days on supplier contract award, whichever is later.

Audible warning devices to be fitted with a manual on/off switch or reset button for circumstances, such as working between 23.00 and 07.00, where it may be appropriate for the device to be deactivated.

4. Prominent signage on the vehicle warning road users of the dangers of manoeuvring past the inside of the vehicle

Within 30 days of supplier contract award:

Warning signage on the rear of vehicles to warn vulnerable road users about getting too close to the vehicle. Signage shall warn the vulnerable road users of the potential danger, advising people to take appropriate action, and shall not be offensive or give instructional advice to the vulnerable road user.

Preferred signage is shown on the right, and templates to allow printing are available (available in A4 210mm x 297mm and also landscape 420mm x 148mm dimensions).



Warning signage will be prominent, clean and clearly visible to the road user. Warning signage will be A4 or equivalent size unless this is not practical in which case an appropriately size warning sign may be used instead.



Where it is impractical to display this signage on the rear of the vehicle (ie – obstruction caused by beaver-tail or similar) the sign should be placed in a prominent position clearly visible to cyclists and other road users.

High visibility reflective markings (consistent in nature with the requirements of the 'Australian Trucking Association Technical Advisory Procedure – Heavy Vehicle Visibility 2016' <http://www.truck.net.au/resource-library/tap-heavy-vehicle-visibility>) should be placed and maintained on:

- All side under-run protection, including parts of the vehicle and/or ancillary devices (fuel tanks, locker boxes etc) which form part of the side under-run protection.
- The draw bars of dog trailers.

5. Truck Driver Training related to Vulnerable Road Users

Within 90 days of training becoming available, or 90 days of supplier contract award, whichever is later.

Exemptions

Where possible exemptions from technology listed in The VRU Requirements should not be permitted, however the following shall be considered exempt at the Major Project Sites:

- Irregular, unplanned or unforeseen critical deliveries;
- Heavy vehicles required for emergency or incident response;
- Escorted abnormal indivisible load delivery heavy vehicles;
- Heavy vehicles engaged by non-contracted utility companies for services that are not contracted by the client but have a statutory undertaking to access their own assets on site.
- Heavy vehicles (including construction plant) that is floated to/from site and are not used on live public roads. E.g. a road registered front end loader that is floated to and from site and does not leave the site boundary.

If special exemptions or waivers are granted, the individual Major Projects shall assess the level of risk by requesting a detailed risk assessment outlining how the contractor intends to minimise the risks. Fleet operators shall demonstrate why the exemption is necessary (including other potential controls), rather than relying on current legal exemptions. The exemption shall be submitted prior to contractor accessing site, and they can only commence work on approval. Approval for all exemptions are to be given by the representative Authority or delegate (i.e. Project Co for WDA on WGT project), and both the request and approval must be in writing.

A central register will be developed and maintained listing all vehicles complying to, and exempted from, The VRU Requirements. All operators will enter vehicles into this register to improve efficiency and track compliance. The register will be accessible by all members of The Group, including in the field (i.e. at site entry gates). The central register must clearly document the approval gained (i.e. whom, written evidence, and date) and tracked for compliance purposes, and will also be used to track the arrival of non-approved vehicles at sites.

Other Definitions

"Regular Heavy Vehicle" is as defined above.

"Regular Driver" is defined as a driver making five or more round trips in any 12 month period to any project worksites across any projects with these requirements.

“Supplier Contract” is the contract between the main project contractor (i.e. Principal Contractor or contractor running the site) and any company providing services to the project (i.e. the fleet operator).

“Short term hire vehicle”: 2 week max on site.

“Escorted abnormal indivisible load” is a load that cannot be divided into pieces to fit on standard haulage equipment (i.e. 12 metre x 2.5 metre standard semi-trailer). An example is a 30 metre T Roff beam which requires an escort.

Governance

The Group will establish governance activities to ensure the mandatory heavy vehicle safety requirements and truck driver training program are implemented on the Project. Continuous improvement shall be achieved through dedicated resources (i.e. heavy vehicle compliance officers) and governance activities (e.g. inspection, compliance checks and competency checks). Any non-compliances will be recorded and monitored, and any opportunities for improvement will be communicated back to The Group for consideration.

Benefits

By establishing a set of mandatory heavy vehicle requirements and developing an industry truck driver training program, it is envisaged this will provide the following benefits:

- Consistent set of expectations for fleet operators and truck drivers across all Major Projects;
- Reduced costs in developing the heavy vehicle requirements and training (currently each project would have to develop their own);
- Efficiency and practicality for the trucking industry - each driver would attend one recognised training course which would be accepted by all Major Projects;
- High quality training produced through consultation with industry, and reference to best current practice;
- Fulfil contractual inclusions in the Major Projects contract conditions.