CONSTRUCTION LOGISTICS AND COMMUNITY SAFETY - AUSTRALIA (CLOCS-A)

STAGE 1:
ESTABLISHMENT PHASE
FINAL REPORT

CONSTRUCTION LOGISTICS AND COMMUNITY SAFETY – AUSTRALIA (CLOCS-A) STAGE 1: ESTABLISHMENT PHASE – FINAL REPORT

Purpose of the document

The Final Report provides an overview of the work delivered throughout the course of the Construction Logistics and Community – Australia (CLOCS-A) Establishment Phase project delivery period (1st April 2019 to 30 April 2020).

The CLOCS-A project is proudly supported by the NHVR's Heavy Vehicle Safety Initiative program

CLOCS-A – PROJECT SUMMARY

The objective of the CLOCS-A program is to develop a nationally consistent plan to deliver safer interactions between construction vehicles and Vulnerable Roads Users (VRUs)

Inspired by the success of the CLOCS Program established in the United Kingdom in reducing road trauma associated with construction logistics, the establishment phase has involved the development of a consistent framework for industry to achieve with the primary goal being a similar reduction in lives lost and serious injuries can be achieved locally on our roads in Australia.

Key activities and deliverables from this project have included:

- Scan of existing CLOCS-A related initiatives in New South Wales, Victoria and Queensland
- Development of a national implementation plan
- Development of a draft guidance document
- Launch of CLOCS-A website

In order for the CLOCS-A initiative to maintain momentum towards achieving the desired objectives, it is recommended that ongoing consultation and refinement of the materials produced as part of the establishment phase of CLOCS-A be undertaken alongside its implementation. This is to ensure that the CLOCS-A approach continues to reflect the needs of industry and major project authorities, and can remain relevant, thereby ensuring a nationally consistent and effective approach to heavy vehicle and vulnerable road user safety into the future.

CLOCS-A - PROJECT ACCOMPLISHMENTS

The CLOCS-A Establishment Phase Project was focussed on undertaking two related activities which were undertaken concurrently:

1. Part A – Program Planning and Consultation
    - Scan of existing CLOCS-A related initiatives in New South Wales, Victoria and Queensland
    - Development of a national implementation plan
    - Development of a draft guidance document
2. Part B – Website Development
    - Deliverable: Launch of CLOCS-A website

Part A – Program Planning and Consultation

Initial scoping discussions were undertaken with relevant stakeholders (see Table 1) to improve understanding of what major construction projects are implementing to manage logistics and community safety and collate examples of existing standards and other related safety content from existing contracts.

Relevant standards from two major project authorities were shared with us as a result of these discussions which included:

- Sydney Metro Principal Contractor Safety Standard - extract from the Heavy Vehicle Safety Requirements section for Vehicle Standards and Driver Training.
- Sydney Metro Frequent Heavy Vehicle Safety Requirements Guide
- Major Projects Vulnerable Road User Alignment Group – Heavy Vehicle Safety Specifications – VRU Safety

Copies of these documents are included in Appendix D

TMR has indicated that nothing specific is currently available however standards that relate to VRUs are being considered for future contracts.

Table 1 Consultation record

Organisation/Entity Consulted	Consultation date
Vic DoT	21/03/2019
DEDJTR	21/03/2019
TfL (UK)	15/04/2019
Sydney Metro	29/04/2019
TMR	30/04/2019
ATA	2/05/2019
VTA	2/05/2019
Transurban	2/05/2019
Spotless	6/05/2019
Hanson	7/05/2019
NTI	9/05/2019
Rail Projects Victoria	11/06/2019
VicRoads	11/06/2019
HVNL Review JSOP	18/6/2019
Lang O'Rourke	21/06/2019
SECBE (UK) (currently managing CLOCS on behalf of TfL)	24/06/2019

Additional documents provided which were also relevant include:

Department of Transport and Main Roads Heavy Vehicle Safety Action Plan 2019-21

Transport for NSW Safety Technologies for Heavy Vehicles and Combinations Guide

VicRoads Safety Technologies for Heavy Vehicles and Combinations Guide

Part B – Website Development

All deliverables prepared as part of Part A – Program Planning and Consultation in addition to other relevant content were published on the website.

APPENDIX A – CLOCS-A - IMPLEMENTATION PLAN

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APPENDIX B – CLOCS-A - DRAFT GUIDE

[redacted]

CLOCS–A
CONSTRUCTION LOGISTICS & COMMUNITY SAFETY–AUSTRALIA

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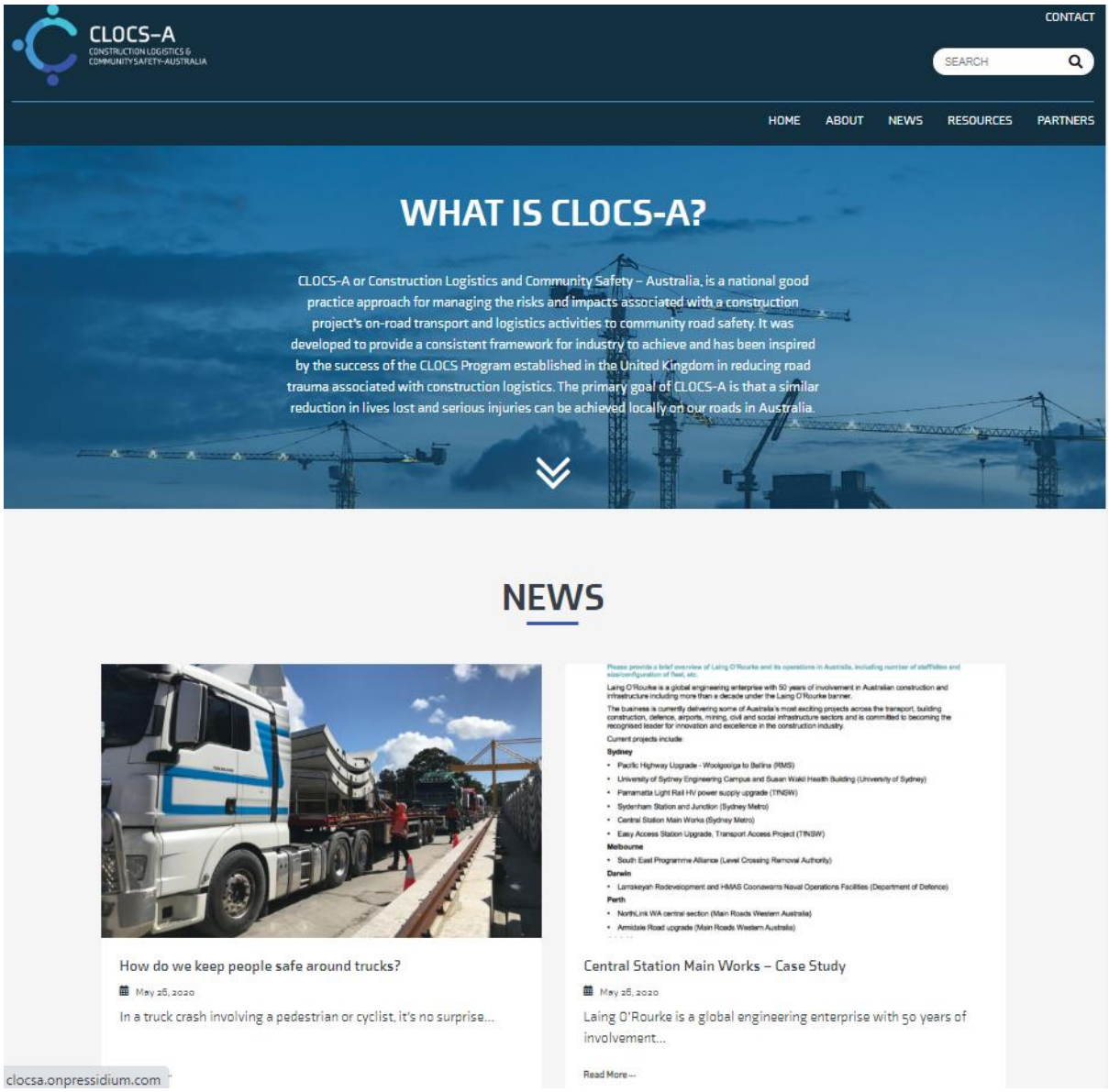
APPENDIX C – CLOCS-A - WEBSITE

Home page part 1



Home page part 2

RESOURCES

CLOCS – what can we learn from the UK experience

May 27, 2020

More information on the implementation of CLOCS in the UK can...

Read More...

CLOCS-A Draft Guidance Document

May 26, 2020

The purpose of this document is to provide government and industry with...

Read More...

Truck driver's blind-spot and cycling

March 19, 2020

A frightening insight into how drivers of semi-trucks can easily miss cyclists...

Read More...

Site By: Creative Approach

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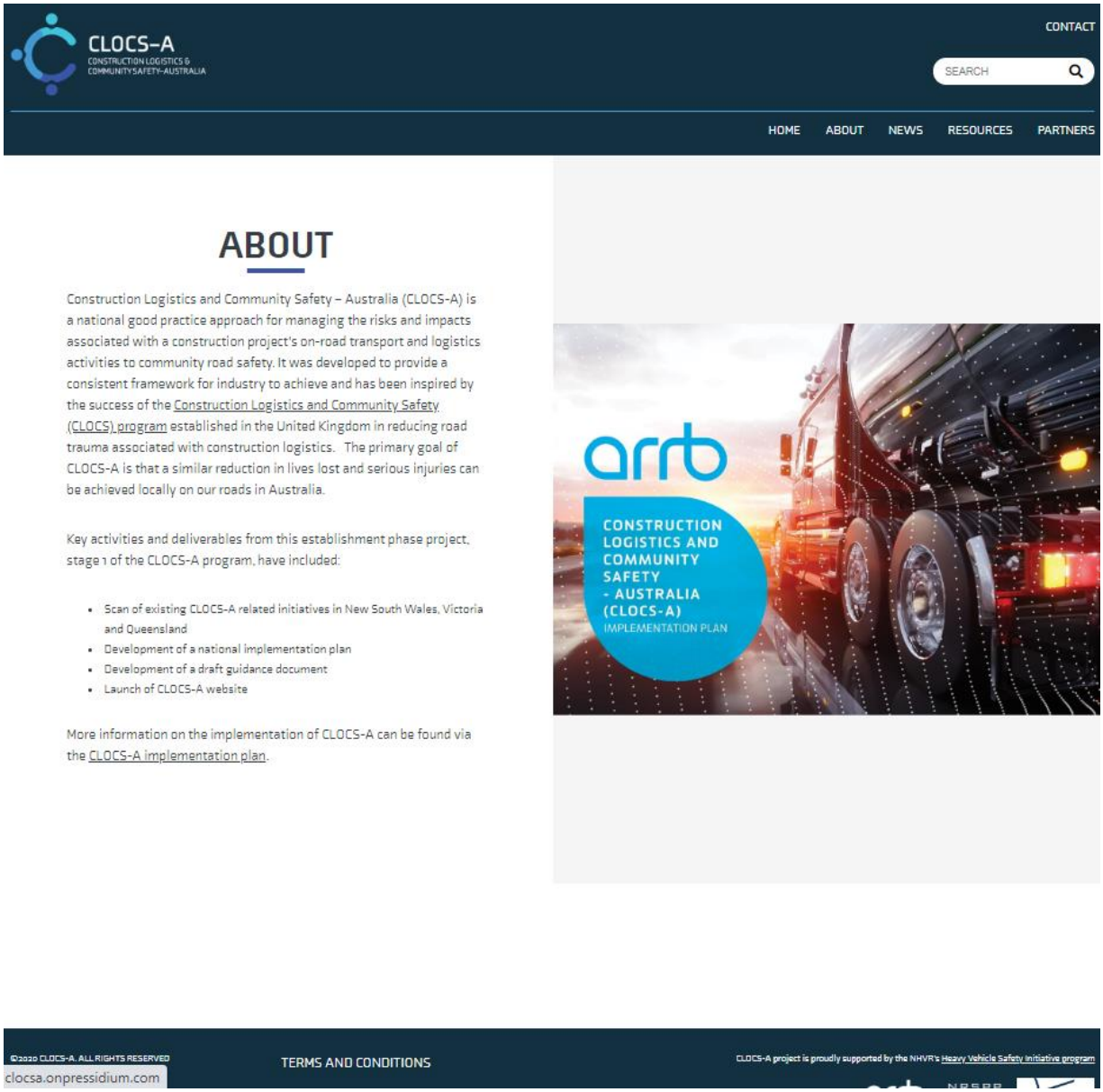
About page


CLOCS–A
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HOME
ABOUT
NEWS
RESOURCES
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ABOUT
Construction Logistics and Community Safety – Australia (CLOCS-A) is a national good practice approach for managing the risks and impacts associated with a construction project's on-road transport and logistics activities to community road safety. It was developed to provide a consistent framework for industry to achieve and has been inspired by the success of the Construction Logistics and Community Safety (CLOCS) program established in the United Kingdom in reducing road trauma associated with construction logistics. The primary goal of CLOCS-A is that a similar reduction in lives lost and serious injuries can be achieved locally on our roads in Australia.
Key activities and deliverables from this establishment phase project, stage 1 of the CLOCS-A program, have included:
Scan of existing CLOCS-A related initiatives in New South Wales, Victoria and Queensland
Development of a national implementation plan
Development of a draft guidance document
Launch of CLOCS-A website
More information on the implementation of CLOCS-A can be found via the CLOCS-A implementation plan.
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CONSTRUCTION LOGISTICS AND COMMUNITY SAFETY - AUSTRALIA (CLOCS-A)
IMPLEMENTATION PLAN
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News page


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CONTACT
SEARCH
HOME
ABOUT
NEWS
RESOURCES
PARTNERS
NEWS
How do we keep people safe around trucks?
May 26, 2020
In a truck crash involving a pedestrian or cyclist, it's no surprise...
Read More...
Central Station Main Works – Case Study
May 26, 2020
Laing O'Rourke is a global engineering enterprise with 50 years of involvement...
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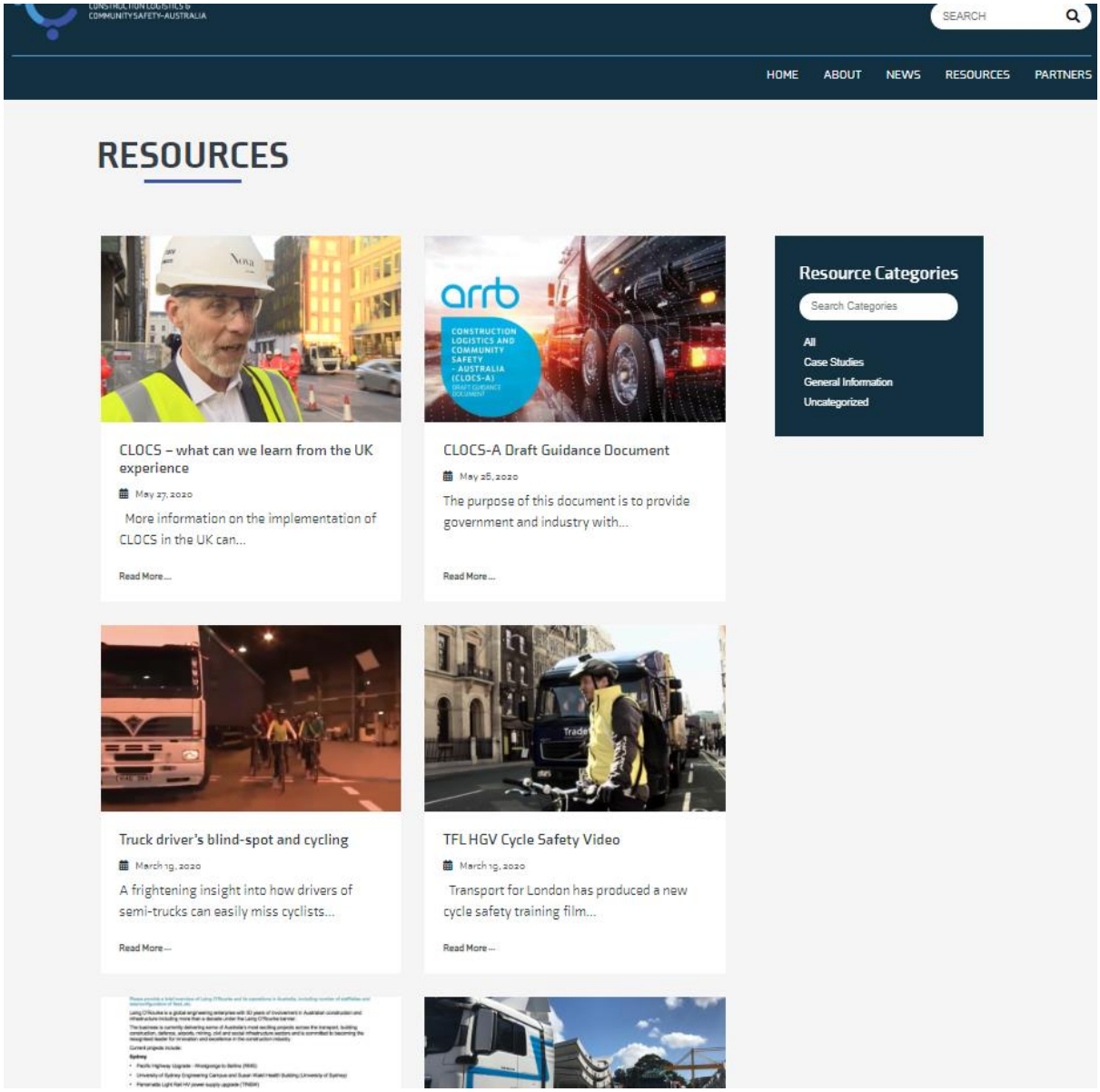
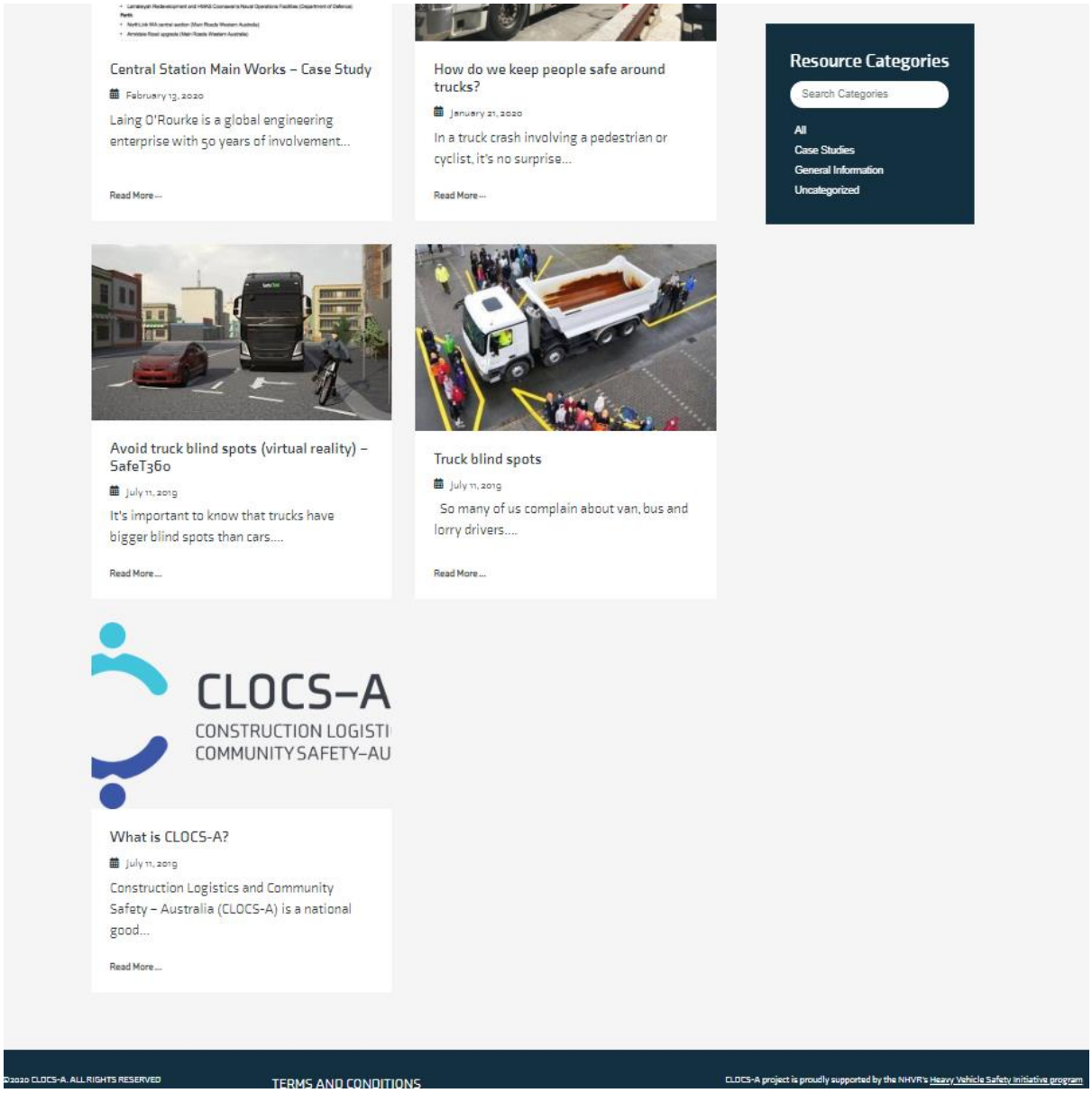
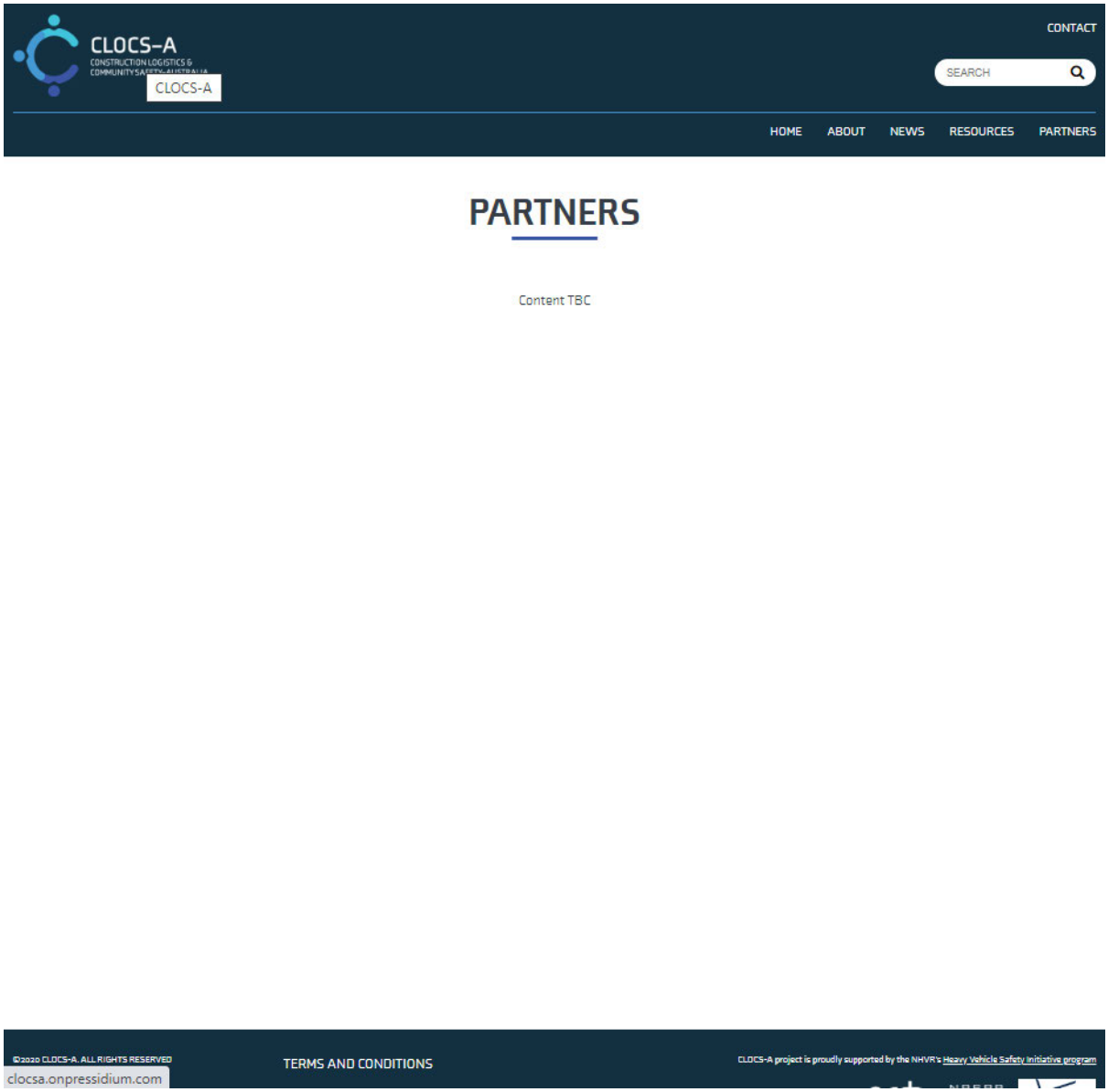
Resources page part 1



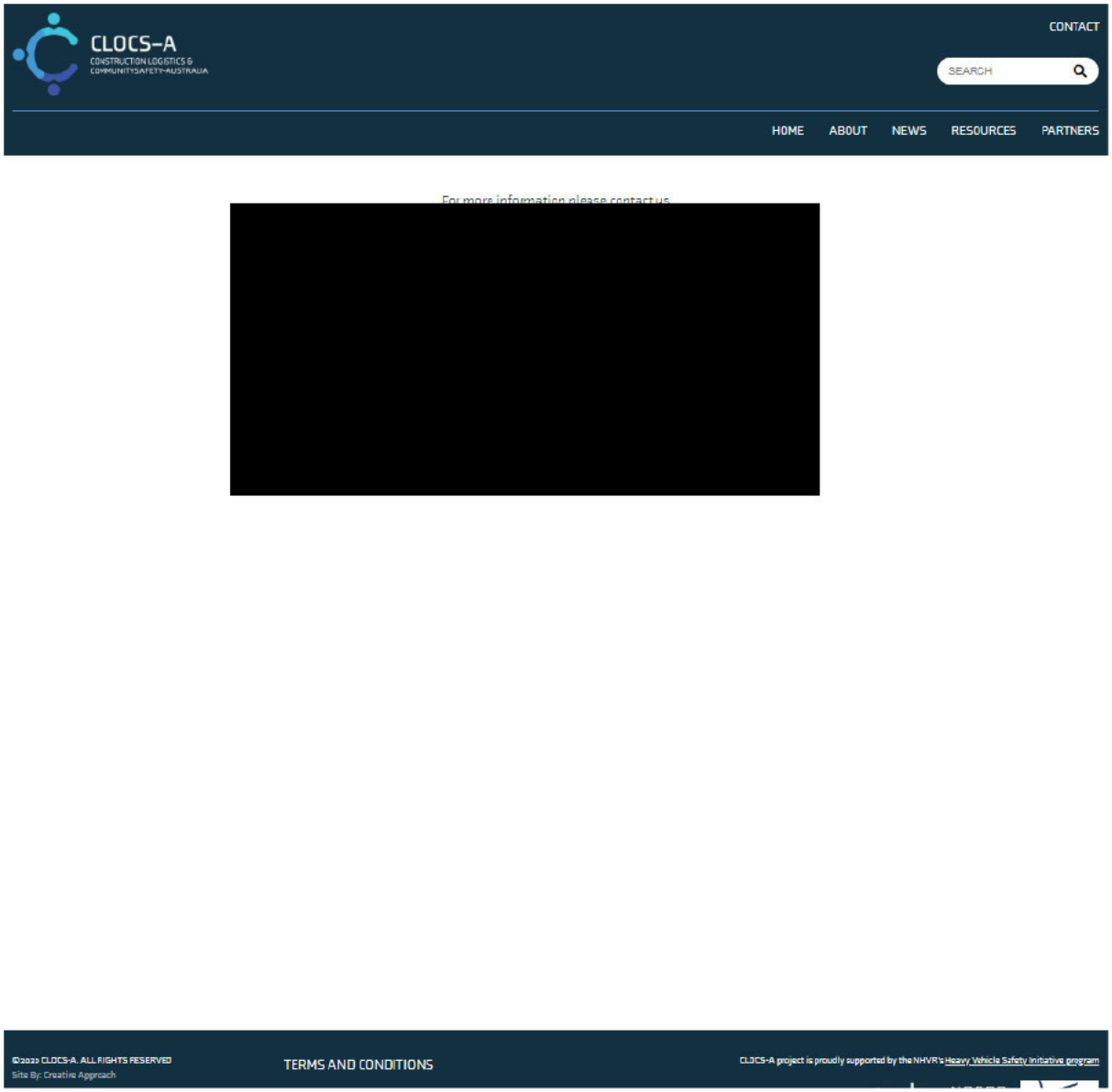
Resources page part 2



Partners page



Contact page



APPENDIX D EXISTING STANDARDS

Sydney Metro Principal Contractor Safety Standard - extract from the Heavy Vehicle Safety Requirements section for Vehicle Standards and Driver Training

11.17.3. Haulage Route Compliance

The PC must ensure that approved Heavy Vehicle haulage routes are adhered to at all times by Heavy Vehicle Operators (including sub-contractors and owner-operators) in the PC's road transport supply chain and that systems are in place to monitor the location of the vehicle at all times.

The PC must investigate any non-compliance with approved haulage routes and if deemed necessary, establish and issue a corrective action plan with the heavy vehicle operator to ensure future compliance.

11.17.4. Heavy Vehicle Safety Requirements

The PC must ensure that all Frequent Heavy Vehicles) over 4.5 tonnes gross vehicle mass (GVM), are fitted with the following safety equipment, as a minimum, unless it can be demonstrated to the reasonable satisfaction of Sydney Metro that the Heavy Vehicle will not perform the function for which it was built if the equipment was fitted:

a) Side-underrun guards, in accordance with UNECE Regulation 73 and the ATA's Industry Technical Council Advisory Procedure for Side Under Run Protection, on both sides:
   i. between the front and rear axle of all rigid (single unit) trucks; and
   ii. between the front axle/landing legs and rear axle of trailers forming part of a combination.

b) Class IV, V and VI mirrors compliant with ADR 14/02 – Rear Vision Mirrors, or equivalent blind spot elimination/minimisation measures as defined in the Truck Industry Council's Voluntary Code of Practice to Ensure an Adequate Field of View.

c) A TCA certified Intelligent Fleet Management System or equivalent Vehicle Telematics System capable of monitoring driver speed, acceleration/deceleration, fatigue, and vehicle location as a minimum. Reports from these systems must be made available to Sydney Metro on request.

d) Rear warning signs alerting other road users to the dangers of overtaking the Heavy Vehicle and signs on the front nearside warning pedestrians about walking close to the front of a moving or stationary Heavy Vehicle.

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e) Full body conspicuity (line and contour) markings compliant with the requirements of UN/ECE 104 – Uniform Provisions Concerning the Retro-Reflective Markings for Heavy and Long Vehicles and their Trailers and ADR 13/00. Reflective markings must be fitted to the drawbar of all trailers on the project.

The PC must ensure that all Frequent Heavy Vehicle drivers are provided with sufficient training, instruction and supervision to ensure the competent use of the safety equipment specified in this section.

The PC must conduct safety and compliance inspections of heavy vehicles prior to permitting the vehicle for use on the project and at all access points to the PC's project sites. Inspections for compliance with the above requirements should be incorporated as part of the PC's plant pre-mobilisation inspections and site CoR inspections.

Where a vehicle does not meet the above minimum requirements, a Heavy Vehicle Safety Requirements Waiver may be applied for and considered by the Principal's Representative. As part of the request for the waiver, the PC must develop an agreed action plan demonstrating the steps to be taken with the Heavy Vehicle Operator to ensure compliance before the vehicle is permitted to operate on the project.

11.17.5. Heavy Vehicle Compliance Tracking

The PC must maintain a project heavy vehicle safety and compliance register to record truck/trailer description, registration; compliance outlined in the Heavy Vehicle Safety Requirements section of this Standard; and number of round trips made to the PC's project sites each month. The register must be updated throughout the project and provided to the Principal's Representative monthly.

11.17.6. Heavy Vehicle Driver Training

The PC must ensure that all Frequent Heavy Vehicle drivers engaged on the project, including those employed by Sub-contractors and suppliers (including owner drivers), attend the Sydney Metro Heavy Vehicle Driver Introduction Course before they work on the project or reach Frequent Heavy Vehicle driver status.

Sydney Metro - Frequent Heavy Vehicle Safety Requirements

The following table provides a list and description of the safety technology, equipment and accreditation requirements for all frequent heavy vehicles working on Transport for NSW's Sydney Metro City & Southwest Project.

Heavy Vehicle Safety Requirement	Description	Example
Side Underrun Protection Devices (SUPDs)	Side Underrun Protection Devices (SUPDs) or 'side underrun guards' fill the open space between the front and rear axles on heavy vehicles and trailers. SUPDs minimise the severity of a collision with other road users (light vehicle, motorcyclist, etc.) who may be travelling in the side blind spot and collide with the side of a turning or merging heavy vehicle. Where another road user collides with the side of the heavy vehicle, they are pushed aside, instead of being dragged under the vehicle and run over by the rear wheels. Vulnerable road users (motorcyclists, cyclists and pedestrians) in particular have a far greater chance of surviving and avoiding serious injury if they are deflected from SUPDs, than if they are caught under the vehicle. It is important that the SUPDs don't interfere with the vehicles functionality when installed and some existing equipment such as fuel tanks or toolboxes may form suitable side-underrun protection if they meet the same technical specifications. The Australian Trucking Association (ATA) has developed an industry technical council advisory procedure for compliant side underrun protection in accordance with the requirements as set-out in UN-ECE regulation R73.	 

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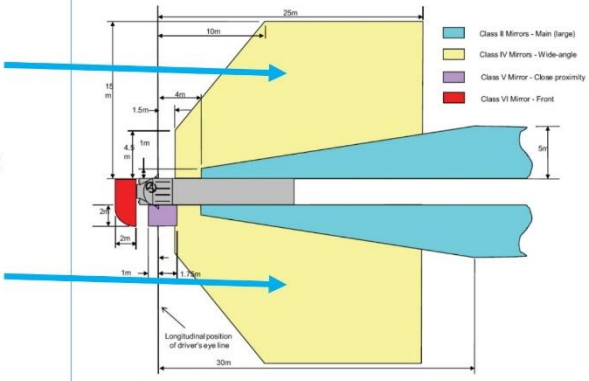
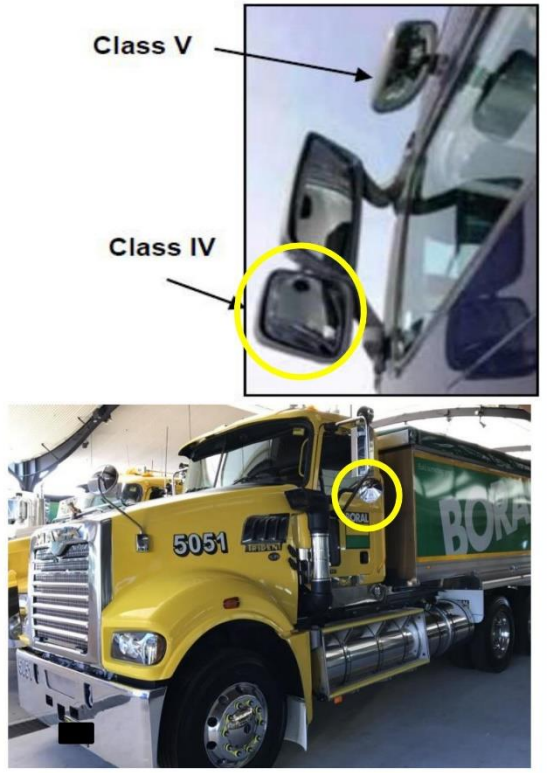
Heavy Vehicle Safety Requirement	Description	Example
Class IV (Wide Angle) Mirrors	Class IV (Wide Angle) blind spot mirrors increase the field of vision for the driver on both sides of the vehicle. This enables the driver to see, for example, a cyclist or motorcyclist who is on their left hand side, or a car in the left hand lane, if the driver needs to move into that lane. Class IV mirrors are a mandatory minimum requirement for frequent heavy vehicles working on Sydney Metro City & Southwest projects. Refer to Vehicle Standard (Australian Design Rule 14/02 - Rear Vision Mirrors) 2006 for technical specifications. Wide angle rear blind spots eliminated to driver and passenger's side of vehicle  Figure 2: Field of vision requirements (2003/97/EC).	

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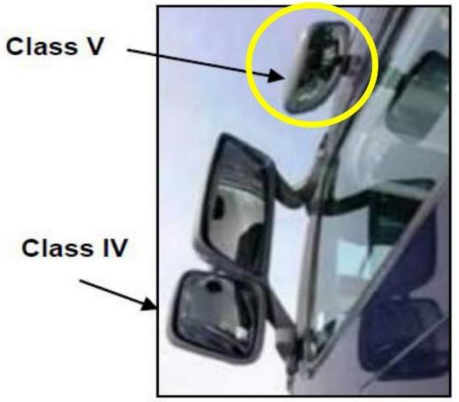
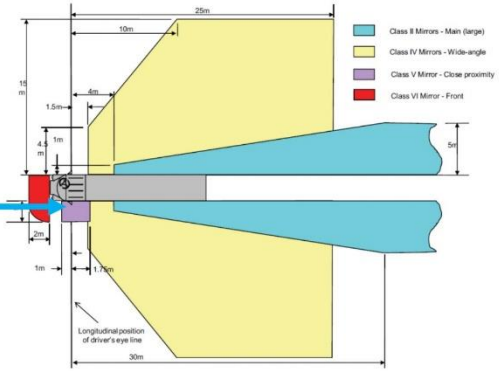
Heavy Vehicle Safety Requirement	Description	Example
Class V (Near Side Blind Spot) Mirror	Class V (near side) blind spot mirrors increase the field of vision for the driver on the near side of the vehicle. This enables the driver to see, for example, a cyclist who is on their left hand side, or a car in the left hand lane, if the driver needs to move into that lane. Class V mirrors are a mandatory minimum requirement for frequent heavy vehicles working on Sydney Metro City & Southwest projects. Refer to Vehicle Standard (Australian Design Rule 14/02 - Rear Vision Mirrors) 2006 for technical specifications.	
Blind spot to front nearside (kerbside / passenger's side) of vehicle covered	 Figure 2: Field of vision requirements (2003/97/EC).	

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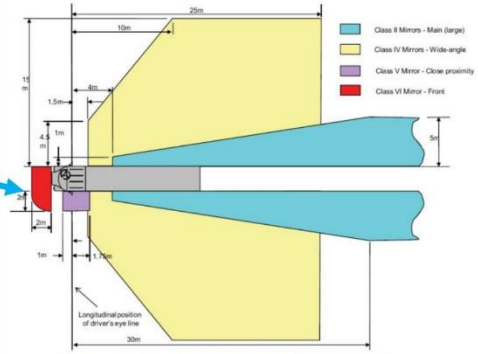
Heavy Vehicle Safety Requirement	Description	Example
Class VI (Front Blind Spot) Mirror	Class VI mirrors are also required to give a view of the roadway directly in front of the drivers cab; these mirrors have been proven effective to reduce collisions with cyclists and pedestrians in cab-over-engine trucks. For conventional style trucks, the use of a front projection ("bug-eye") mirror may provide similar reduction in the front blind spot created by the front of the vehicle's bonnet. Class VI mirrors are a mandatory minimum requirement for frequent heavy vehicles working on Sydney Metro City & Southwest projects. Refer to Vehicle Standard (Australian Design Rule 14/02 - Rear Vision Mirrors) 2006 for technical specifications. Blind spot in front of vehicle covered  Figure 2: Field of vision requirements (2003/97/EC).	 

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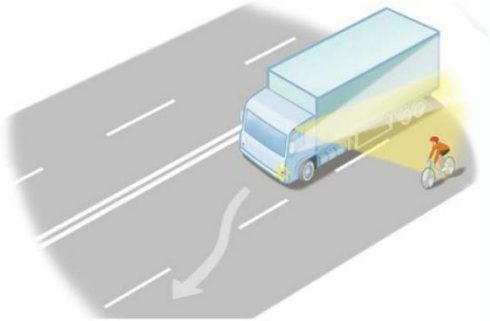
Heavy Vehicle Safety Requirement	Description	Example
Other blind spot elimination/detection systems	Additional blind spot elimination/ detection systems assist to provide the driver with a complete view of spaces around the vehicle as well as providing audible and visual warnings. This can be achieved by using a combination of extra mirrors, sensors, cameras mounted on the sides and rear of the heavy vehicle, or through providing direct vision through providing windows in the passenger's side door. Where cameras are used, care must be taken when installing the display screen in the cabin in such a way as to provide the driver with information when desired, without posing as a potential distraction. The truck industry council has released a voluntary code of practice to ensure an adequate field of view listing a number of potential blind spot elimination / minimisation options which can easily be achieved.	 

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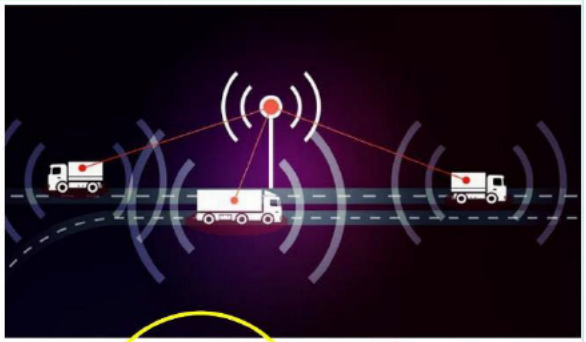
Heavy Vehicle Safety Requirement	Description	Example
Vehicle Telematics System	A way to monitor the speed, location, movements, status and behaviour of a vehicle or fleet of vehicles. Some systems provide instant feedback to drivers about how they are driving. Vehicle telematics are used to monitor driver behaviour and highlight any potential causes for concern to prevent an incident. Important to note that data obtained needs to be managed and acted on to be of any benefit. Therefore, where breaches are identified, corrective actions should be assigned to prevent recurring unsafe or illegal behaviours. Vehicle telematics are a mandatory minimum requirement for frequent heavy vehicles working on Sydney Metro projects.	  In Vehicle Unit (IVU) – used by driver to input compliance information (i.e. hours worked, axle mass)

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Heavy Vehicle Safety Requirement	Description	Example
Rear Warning Signage	An effective, easy to fit and relatively cheap method of raising awareness is a warning sign on the back of trucks and trailers alerting cyclists / motorcyclists to the dangers of undertaking these vehicles. Cyclists and Motorcyclists who undertake heavy vehicles frequently put themselves in danger if they do not realise the vehicle is about to turn left. Rear warning signage is a mandatory minimum requirement for frequent heavy vehicles working on Sydney Metro City & Southwest projects.	

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Heavy Vehicle Safety Requirement	Description	Example
Front Near Side Warning Signage	As per above description. An effective and cheap method of raising awareness to pedestrians attempting to walk closely around and past heavy vehicles in their blind spots. High pedestrian traffic is common in Sydney and North Sydney CBDs. Pedestrians can be caught in the front and front nearside of a heavy vehicle when crossing through traffic or walking closely around the cab of the vehicle. Front near side warning signage is a mandatory minimum requirement for frequent heavy vehicles working on Sydney Metro projects.  	 

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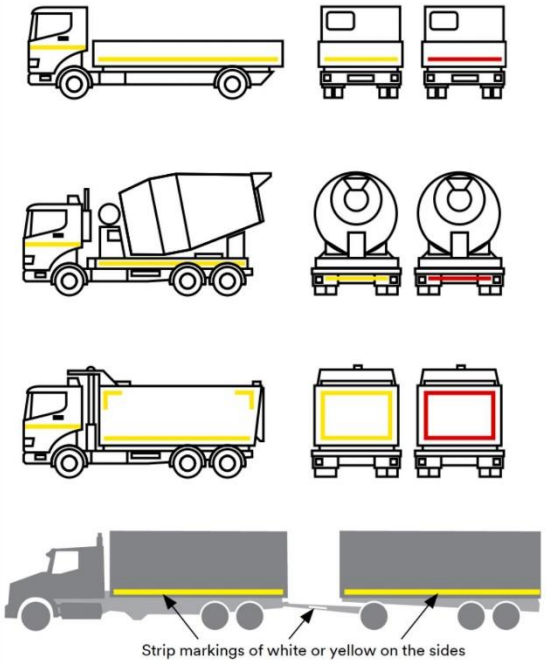
Heavy Vehicle Safety Requirement	Description	Example
Enhanced Visibility / Conspicuity (line and contour) markings	Vehicle markings increase vehicle visibility in low-light conditions. When fitted, visibility markings must meet Australian Design Rule requirements. Vehicle visibility markings can be retrofitted. The ATA has developed an industry technical council advisory procedure that providing guidance to enhance vehicle visibility through vehicle visibility markings. Visibility markings should also be placed on the drawbar of dog trailers to provide as much visibility to road users who might attempt to pass behind the truck. Visibility / conspicuity markings are a mandatory minimum requirement for frequent heavy vehicles working on Sydney Metro City & Southwest projects. Enhanced visibility markings must also be applied to the drawbar of dog trailers 	

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Heavy Vehicle Safety Requirement	Description	Example
Heavy Vehicle Accreditation	The **NHVAS** is a formal process for recognising operators who have robust safety and other management systems in place. It is also increasingly being used to show compliance with general duty requirements under road transport law. Heavy vehicle operators must meet maintenance management accreditation as a minimum, however may apply for: • Mass Management • Maintenance Management • Basic Fatigue Management (BFM) • Advanced Fatigue Management (AFM) Accreditation labels for mass and/or maintenance management must be placed so they can be read from the outside of the vehicle and are not wholly or partly obscured, defaced or otherwise not legible. **TruckSafe** accreditation is an alternative to NHVAS and based on a set of minimum standards a trucking business should meet for it to be a safe, responsible operation. Accreditation shows operators are meeting their due diligence requirements and duty of care. Furthermore, it provides confidence that operators have responsible work practices, maintained vehicles, healthy and trained drivers and management systems to meet their transport needs. TruckSAFE labels must be displayed on the driver side window or in some other prominent position on driver's side cabin.	 NHVAS Accreditation label affixed to driver door of truck.  NHVAS accreditation label affixed to rear of trailer next to registration plate.

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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	[redacted]
A (Draft)	22/01/2018	
B (Draft)	20/02/2018	
0	27/02/2018	

[redacted]

NRSPP NATIONAL ROAD SAFETY PARTNERSHIP PROGRAM

CLOCS-A CONSTRUCTION LOGISTICS & COMMUNITY SAFETY-AUSTRALIA

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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.

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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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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
Vehicles serving 3rd 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:

   a. Class V mirrors on bonneted vehicles and Class V & VI mirrors on Cab Over vehicles.

   b. Camera.

   c. 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).

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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.

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"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.

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