CLOCS-A

Construction Logistics and Community Safety – Australia

Standard

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1 Introduction

Australian governments are committed to an expected $290 billion in public infrastructure investment over the next 10 years - including an approximate doubling of investment over the next three years[1]. This will mean a wave of construction projects mostly relating to transport, utilities and social infrastructure. Many of these projects will be in cities, towns and urban areas.

As a direct result of this increase in construction activity, the number of heavy vehicle movements related to and in those project locations will also increase significantly.

Recognising that the movement of construction heavy vehicles in populated areas can present hazards for the community – particularly Vulnerable Road Users – both State and Commonwealth governments seek to prioritise and promote the use of safer heavy vehicles, improved driver standards, more effective logistics planning and greater engagement with the community on road safety initiatives.[2]

Construction Logistics and Community Safety – Australia ("CLOCS-A") is a national voluntary Standard developed with the primary aim of managing the risks and impacts associated with a construction project's on-road transport and logistics activities to improve community road safety.

This standard is the result of the collective effort of industry champions involved in construction projects and the supply chain.

Through the wider adoption of the CLOCS-A Standard across Australian construction projects and supply chains, it is expected that the risk of road trauma involving construction vehicles will be reduced and the efficiency of construction project logistics improved.

[1] Infrastructure Australia (2021) Infrastructure Market Capacity: https://www.infrastructureaustralia.gov.au/sites/default/files/2022-02/Infrastructure%20Market%20Capacity%20report%2020220201.pdf
[2] Commonwealth of Australia (2023) National Road Safety Action Plan 2023 – 2025: https://www.roadsafety.gov.au/sites/default/files/documents/National%20Road%20Safety%20Action%20Plan%202023-25_0.pdf

2 Steering Group & Supporting Partners

CLOCS-A is the result of industry, government, peak associations and community organisations working together and adopting a best practice approach to ensure community road safety whilst improving the efficiency and productivity of transport and logistics on construction projects.

Steering Group

The CLOCS-A Steering Group provides the overall governance and strategic direction of the CLOCS-A Program and Standard. The SG is responsible for approving the CLOCS-A Standard and changes and the program's fee structure.

Supporting Partners

The CLOCS-A Supporting Partners (SP) act as industry and community champions for the CLOCS-A Standard and contribute to implementing the Standard, sharing industry best practice, case studies and lessons learned for the improvement of the industry and community road safety outcomes.

3 Overview

The CLOCS-A Standard has been developed to improve the safety of construction logistics in the community. It seeks to do so by:

a. Establishing minimum safety standards for heavy vehicles operating on construction projects
b. Establishing minimum heavy vehicle driver training and competency standards
c. Establishing higher standards for haulage route assessment and logistics planning
d. Improving communication and levels of understanding around heavy vehicle safety with the public

The requirements of CLOCS-A have been developed by industry experts guided by the Safe System Principles underpinning National, State and Territory Vision Zero commitments of achieving no deaths or serious injuries on our road transport network.[3] Key to the Safe System approach is creating a road transport system that is designed and interacts in a way that creates a high level of safety, by anticipating and accommodating human errors.[4]

CLOCS-A provides a quality assurance mechanism that verifies whether relevant systems are in place to ensure that the expected CLOCS-A standard requirements are met.

Vision

The vision of CLOCS-A is simple:

To ensure the safest, leanest, and greenest construction vehicle journeys

Goals

The primary goals of CLOCS-A are:

- Zero road trauma between construction vehicles and the community
- Increased productivity and efficiency
- Fewer heavy vehicle journeys
- Improved air quality and reduced emissions
- Reduced reputational risk

Scope and Application

The CLOCS-A Standard shall be applied by stakeholders involved in the procurement and delivery of construction projects.

Clients shall specify whether the CLOCS-A Standard applies within contracts based on their assessment of risk and in accordance with any local authority requirements.[5]

Queries regarding applicability at specific sites should be directed to, and dealt with, by the Client or Principal Contractor.

Unless otherwise stated it is:

- Applicable to all sites, (projects) that require deliveries, collections or servicing by construction vehicles during construction activities
- Applicable to all frequent heavy vehicle operations[6] and specifically construction logistics vehicles over 4.5 tonnes gross vehicle mass servicing construction sites. This includes abnormal loads and engineering plant where practicable.

A client may specify within their own contracts if this Standard also applies to vehicles under 4.5 tonnes gross vehicle mass, but this should be clearly articulated and would not be considered in the scope of compliance with the CLOCS-A Standard. In such cases, the transport operator will agree with the client how compliance for this group of vehicles will be demonstrated.

All parties shall comply with the CLOCS-A Standard and maintain compliance to the Standard following receipt of accreditation to the CLOCS-A Standard.

The CLOCS-A Standard does not include all the necessary provisions of a contract. Users are responsible for its correct application.

Key Stakeholders

Key stakeholders with roles and responsibilities for implementing the requirements of the CLOCS-A Standard include:

- Planning and Regulatory Authorities
- Government Clients/Developers
- Construction Principal Contractors
- Companies providing Road Transport

3 Commonwealth of Australia (2021) National Road Safety Strategy 2021 – 30: https://www.roadsafety.gov.au/nrss
4 Commonwealth of Australia (2021) Fact sheet: Vision Zero and the Safe System: https://www.roadsafety.gov.au/nrss/fact-sheets/vision-zero-safe-system
5 Refer to section 5 Requirements
6 Frequent heavy vehicle operations to a construction project are considered to include, but not limited to, heavy vehicles involved in:
- the removal of demolition waste, construction waste or excavated spoil,
- all deliveries of concrete or pre-cast concrete segments,
- deliveries to site of plant, equipment or other construction materials,
- ancillary heavy vehicle operations,
- any other heavy vehicle movement by a business or transport operator making 6 or more round trips to a construction project's sites in a 12-month period.

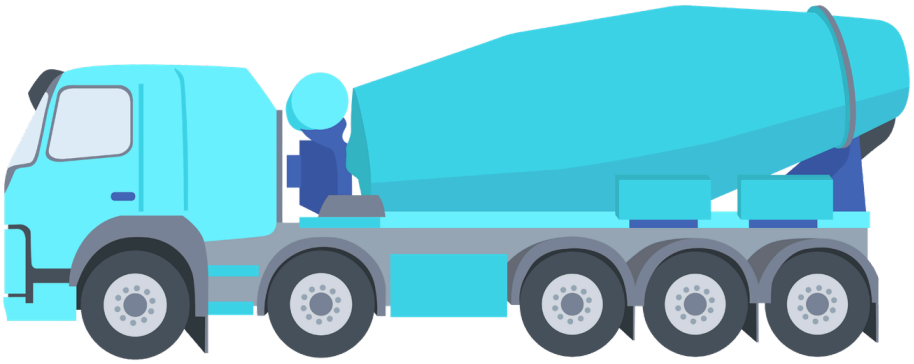
For each project, implementers of the CLOCS-A Standard are responsible for making a reasonable determination about which heavy vehicle transport activities fall within the scope of the CLOCS-A Standard.

4 Definitions

ADR	Australian Design Rule
Client (including Developers)	Clients are stakeholders in a construction project responsible for the commissioning and funding to construction Principal Contractors to design and construct infrastructure or other building developments.
CLOCS-A	Construction Logistics and Community Safety – Australia
Construction Project	Any work carried out in connection with the construction, alteration, conversion, fitting-out, commissioning, renovation, repair, maintenance, refurbishment, demolition, decommissioning or dismantling of a structure where the cost of the work is $250 000 or more.
Delivery Management System (DMS)	A tool used to streamline the delivery process from start to finish. DMSs are used to improve operations by supporting the planning and management of bookings and optimising routes to increase the efficiency of deliveries.
Heavy Vehicle	A vehicle that has a gross vehicle mass (GVM) or aggregate trailer mass (ATM) of more than 4.5 tonnes. The GVM of a vehicle is the maximum it can weigh when fully loaded, as specified by the manufacturer.
HVNL	Heavy Vehicle National Law
NHVR	National Heavy Vehicle Regulator
OHS	Occupational Health and Safety
Principal Contractor	The entity responsible for the construction of the project, who has management and control of the workplace(s) where the construction work will take place. Principal Contractor's responsibilities include the planning and procurement of supplies and services that require construction vehicle deliveries to and from the Principal Contractor's construction site(s).
Site	Any location or defined area under the management or control of the principal contractor or project owner where construction activities and associated heavy vehicle movements occur. This includes any areas where these movements interface with the surrounding transport network and may pose a safety risk to workers, the surrounding community, or other road users. *Guidance Note: The CLOCS-A standard is intended to manage risks where construction logistics interact with the public. Therefore, internal movements, such as those occurring entirely within a bored tunnel, a closed rail corridor, or a fully fenced internal haul road that does not interface with the public road network, are generally excluded from the definition of a 'Site' for the purposes of this audit.*

4 Definitions

Transport Operator	The entity responsible for controlling or directing the use of a vehicle (or fleet of vehicles) or the towing vehicle in a combination.
Vulnerable Road User	Road users not in a car, bus or truck, generally considered to include pedestrians, motorcycle riders, cyclists, children 7-years and under, the elderly and users of mobility devices. In the event of a crash, VRUs have little to no protection from crash forces.
WHS	Work Health and Safety



5 Requirements

The following section sets out the requirements for each stakeholder group involved in a construction project to meet the CLOCS-A Standard.

Compliance against each requirement is required to be a CLOCS-A accredited party.

CLOCS-A Accreditation is awarded on a 3-tiered approach. These are Bronze – Silver – Gold status.

Status level for a CLOCS-A party is based on meeting certain defined criteria set out in this standard. Accreditation is awarded in accordance with the CLOCS-A Audit and Accreditation Business Rules and Standards.

5.1 Stakeholder Group 1 – Planning Authorities and Regulators

Planning Authorities and Regulators consist of government authorities responsible for approving construction projects to go ahead and issuing conditions as part of the approvals for the construction project to comply with. These typically include Planning Departments and Local Councils.

5.1.1 Planning Conditions

Planning Authorities shall:

a. Ensure, where a construction project is assessed [7] to introduce traffic and transport impacts to the community, conditions of approval issued to the project specify that the construction project take all reasonably practicable measures to mitigate the risks and impacts to community road users from construction transport and logistics activities through complying with the CLOCS-A Standard.

5.1.2 Monitoring and Reporting

Planning Authorities shall:

a. Obtain evidence throughout the duration of the construction project to verify that Construction Principal Contractors are implementing and maintaining measures as per the CLOCS-A Standard.

5.1.3 Corrective/Remedial Actions

Planning Authorities shall:

a. Have processes in place to manage instances of a breach and shall clearly communicate corrective/remedial actions required of the project team.

5.2 Stakeholder Group 2 – Clients/ Developers

Clients and Developers are responsible for commissioning and funding contracts to construction Principal Contractors to design and construct infrastructure or other building developments.

5.2.1 Risk Assessment

Clients/ Developers shall:

a. Undertake risk assessments [8] during the planning and/or design phase of the construction project to identify and assess the project's risks to public road user groups as a result of the project's construction transport activities within the surrounding environment and other locations.

   i Risk Assessments of construction transport activities should consider factors including the local environment, volume, frequency and type of truck movements involved, other road user demand, historical crash data and incident trends (where available).

   ii Risk Registers should include the outputs of risk assessments, recording proposed mitigation measures to reduce the impacts and risks to the public.

   iii Risk assessments shall be used to determine the minimum CLOCS-A Accreditation level (Bronze/ Silver/Gold) to be specified in contracts.

5.2.2 Route Assessments

Clients/ Developers shall:

a. Conduct preliminary risk assessments of proposed haulage routes servicing project construction sites, considering their interface with public road users, sensitive land use areas and potential for conflict with vulnerable road users.

   i Haulage route risk assessments may be conducted using industry-recognised tools such as the *Safe System Assessment*, *Road Safety Audit or Human Impact Route Assessment* (HIRA) tool.

   ii Assessments shall be communicated to the Principal Contractor upon contract award.

7 CLOCS-A Project Risk Rating Tool may be used by organisations to assess the level of risk.
8 CLOCS-A Project Risk Rating Tool may be used by organisations to assess the level of risk

5 Requirements

5.2.3 Safety in Planning and Design

Clients/ Developers shall:

a. Investigate, consider and specify, where reasonably practicable, measures to reduce heavy vehicle movements / deliveries to the project's construction sites. Options may include:
   - Procurement of land (e.g., for the purposes of laydown, materials consolidation, truck marshalling, etc.)
   - Use of alternative transport modes
   - Re-use of materials/spoil onsite
   - Prefabrication at an off-site location
   - Truck marshalling facilities/areas

(See Appendix A – Construction Logistics Planned Measures)

5.2.4 Procurement of Construction Principal Contractors

Clients/ Developers shall:

a. Ensure contracts awarded to Construction Contractors specify that compliance to the CLOCS-A Standard shall be met by the Construction Contractor Party that is appointed Principal Contractor. The Principal Contractor shall be responsible for ensuring that their transport supply chain and those of any other parties procuring transport supply for the project complies with the CLOCS-A Standard.

5.2.5 Procurement of Transport Operators

Clients/ Developers shall:

a. Ensure, where engaging in contracts directly with a Transport Operator, contracts awarded to the Transport Operator specify compliance to the CLOCS-A Standard Level that must be met by the Transport Operator and their supply chain.

5.2.6 Monitoring and Assurance

Clients/ Developers shall:

a. Verify CLOCS-A accreditation of the Principal Contractor and major transport subcontractors throughout the tender procurement phase and following through to the contract being awarded.

b. Require Principal Contractors report on CLOCS-A Accreditation status periodically throughout project, notifying any changes to the accreditation requirements, and if applicable, the action plan to regain accreditation.

5.2.7 Incident and Performance Reporting

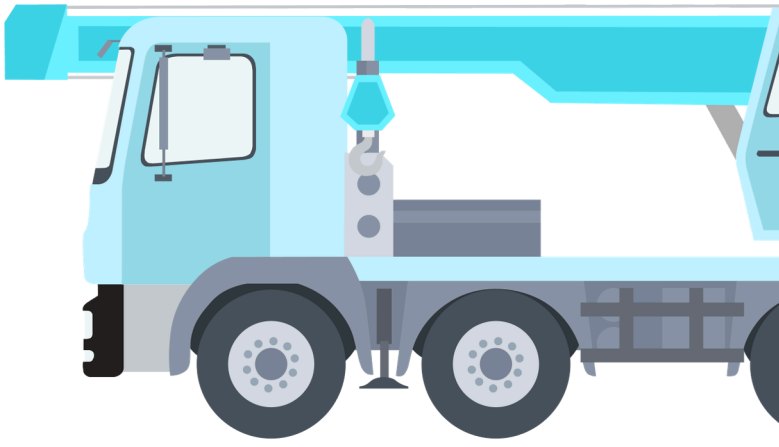
Clients/ Developers shall:

a. Require Principal Contractors to report on transport-related incidents (crashes, loss of load, impacts with infrastructure, near misses, unsafe behaviour) and verify that appropriate corrective and preventative actions are taken to prevent such recurrences in accordance with Appendix D – CLOCS-A Reporting Metrics.

5.2.8 Communications and Engagement

Clients/ Developers shall:

a. Ensure implementation of Community Engagement Communications & Activities is carried out in accordance with the Appendix B - Communications Standard.



5 Requirements

5.3 Stakeholder Group 3 – Principal Contractors

Principal Contractors are appointed by the Client and are responsible for project safety and the coordination of site activities during construction of the project. This includes the planning and procurement of goods and services that require construction heavy vehicle movements to and from project construction sites.

5.3.1 Risk Assessment

Principal Contractors shall:

a. Undertake risk assessments[9] throughout the life of the construction project to identify and assess the project's risks to public road users as a result of generating construction heavy vehicle movements to/ from its construction sites.

   i Risk Assessments of construction heavy vehicle movements should consider factors including the local environment, volume, frequency and type of truck movements involved, other road user demand, and historical crash data and incident trends (where available).

   ii Risk Registers should include the outputs of risk assessments, recording inherent and residual risks and the agreed mitigation measures to reduce impacts and risks to the public. Risk registers shall be reviewed periodically at a frequency no less than every six months.

5.3.2 Route Assessments and Planning

Principal Contractors shall:

a. Ensure haulage route risk assessments are undertaken in consultation with relevant stakeholders to assess and select the safest haulage routes to and from the construction site to the closest arterial or collector road.[10]

   i Haulage route risk assessments may be conducted using industry-recognised tools such as the *Safe System Assessment, Road Safety Audit or Human Impact Route Assessment* (HIRA) tool.

   ii Other simulation tools can be adequate if calibrated appropriately.

b. Document and implement a heavy vehicle route plan which outlines the preferred haulage routes identified servicing the construction project sites, route hazards by type, route instructions and communication, routes agreed upon for the specific vehicle types and any applicable access approvals.

   i The heavy vehicle route plan shall be communicated to Transport Operators and may be included as an Appendix to the Construction Logistics Management Plan as required in section 5.3.3

5.3.3 Construction Logistics Management Plan

Principal Contractors shall:

a. Develop, implement, and maintain a project-specific construction logistics management plan ("CLMP") which provides the framework for planning and managing heavy vehicle movements into and out of construction project site(s). The CLMP shall address the criteria outlined in Appendix C – Construction Logistics Management Plan.

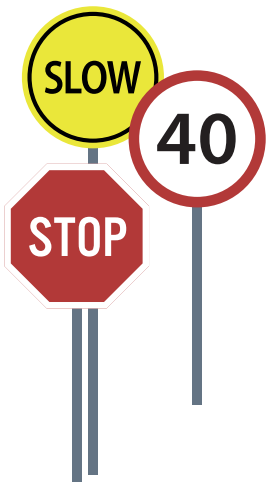
5.3.4 Construction Traffic Management Plan

Principal Contractors shall:

a. Develop, implement, and review an overarching construction traffic management plan ("CTMP") (or equivalent) which describes how traffic will be managed when construction works are being carried out, the work activities being proposed, their impact on the roadway and on road users, including vulnerable road users, independent risk assessments by qualified professinoals, and how these impacts are being addressed.

   i CTMP's must incorporate Traffic Guidance Schemes and Vehicle Movement Plans. Pedestrian Movement Plans and Cyclist Movement Plans should also be incorporated where relevant.

   ii CTMPs should be developed in accordance with the local road authorities' requirements for traffic management around construction sites and worksites.



9 CLOCS-A Project Risk Rating Tool may be used by organisations to assess the level of risk
10 Haulage route assessments may be conducted to assess additional sites, such as those operated by significant or major suppliers to the construction project, at the discretion of the Principal Contractor.

5 Requirements

5.3.5 Planned Measures

Principal Contractors shall:

a. Investigate, consider and implement, where reasonably practicable, measures to minimise the impact of the construction project's cumulative transport and logistics movements on the local road network, (e.g., such as through the adoption of new technology or planning tools enabling further productivity and efficiencies).

   i Planned measures committed to by the Principal Contractor shall be captured in the project's Construction Logistics Management Plan.

   ii Planned measures may include a range of, but not limited to, those listed in Appendix A – Construction Logistics Planned Measures.

Silver Accreditation Requirement

b. Demonstrate evidence of continuous improvement by moving from investigating to implementation of Planned Measures.

Gold Accreditation Requirement

c. Demonstrate measurable improvements to the project's safety, productivity and efficiency following implementation of Planned Measures.

5.3.6 Procurement of Transport Operators

Principal Contractors shall:

a. Ensure contracts issued to Transport Operators directly, or via subcontractors, specify compliance with the CLOCS-A Standard.

b. Ensure Transport Operators engaged through contracts directly, or via subcontractors, provide evidence of compliance to the CLOCS-A Standard to the Principal Contractor or subcontractor.

c. Where CLOCS-A compliant Transport Operators cannot be engaged, Principal Contractors or subcontractors shall agree to a CLOCS-A implementation plan over an agreed timeframe. In the interim, the Principal Contractor or subcontractor shall have in place processes to verify and validate the Transport Operators existing road transport safety management systems.

5.3.7 Project Rules and Requirements

Principal Contractors shall:

a. Implement a process to ensure heavy vehicle drivers engaged to undertake transport activities on behalf of the Principal Contractor hold a valid and appropriate licence for the class of vehicle operated on the Principal Contractor's construction project.

b. Ensure heavy vehicle drivers working on the Principal Contractor's project have completed the required level of training as required by the CLOCS-A Standard.

c. Ensure a project-specific induction is provided to heavy vehicle drivers engaged by the Principal Contactor communicating as a minimum, applicable approved construction haulage routes, any restrictions that may apply and any identified traffic safety risks in the surrounding local environment.

d. Document and implement a drug and alcohol policy and require Transport Operators to implement this policy and obtain assurance of the conduct and outcomes of the drug and alcohol testing program implemented by Transport Operators engaged by the Principal Contractor as required by section 5.4.5 (c).

e. Develop and implement a process which clearly communicates the expectations of heavy vehicle drivers working on the Principal Contractor's construction project and operating in the local community.

5.3.8 Management and Monitoring of Construction Transport Activities

Principal Contractors shall:

a. Document and implement systems to manage compliance with relevant transport laws and regulations (e.g. Heavy Vehicle National Law, Road Rules, etc.)

b. Implement a system to monitor the safety and compliance of construction deliveries to and from the Principal Contractor's project sites.

   i Monitoring of activities shall take into account compliance with approved haulage routes, CLOCS-A compliance status of vehicles delivering to sites, any deviation or non-compliances identified, and any corrective actions taken.

5 Requirements

5.3.9 Incident Reporting

Principal Contractors shall:

a. Ensure any transport-related incidents and community complaints associated with the construction projects activities, and its supply chain, are reported and investigated to a level commensurate to the severity of the incident and/ or complaint.
b. Ensure appropriate corrective actions and lessons learnt are disseminated to the CLOCS-A Community following any transport-related incidents or complaints where there was an actual or potential fatality or serious injury to a driver, worker or member of public.

5.3.10 Performance Reporting

Principal Contractors shall:

a. Periodically report (Quarterly/ Annually/ Project to date) to the Client on the CLOCS-A metrics throughout the duration of the construction project. Refer to Appendix D for CLOCS-A Reporting Metrics.
    i Where major incidents and/ or non-conformances are observed, Principal Contractors shall report these within the Quarter as soon as reasonably practicable.
    ii Where non-compliance is identified, an action plan to address all key issues shall be obtained and monitored.
b. Report to the Client on CLOCS-A Accreditation status periodically throughout project, notifying of when CLOCS-A audits have occurred, recommendations/ findings and any changes to accreditation and if applicable, details on the action plan to regain accreditation.

5.3.11 Communications and Engagement

Principal Contractors shall:

a. Ensure implementation of Community Engagement Communications & Activities is carried out in accordance with the Appendix B - Communications Standard.

5.4 Stakeholder Group 4 – Transport Operators

Transport Operators are: any business or undertaking employed directly by the Principal Contractor that is responsible for controlling or directing the use of heavy vehicles to deliver to/from a construction site/ development.

Transport Operators that subcontract any transport activities to any other parties are responsible for ensuring full compliance by those other parties to all aspects and requirements of this Clause 5.4.

5.4.1 Compliance with transport regulations

Transport Operators shall:

a. Document and implement systems to manage compliance with relevant transport laws and regulations (e.g. Heavy Vehicle National Law, Road Rules, etc.)

5.4.2 Vehicle Safety Requirements

Transport Operators shall:

a. Ensure heavy vehicles accredited to the CLOCS-A Standard and/or operating on CLOCS-A accredited construction projects comply with the vehicle safety specifications in Appendix E - CLOCS-A Vehicle Safety Specification.

5.4.3 Vehicle Maintenance

Transport Operators shall:

a. Document and implement a maintenance management system to manage the routine planned and unplanned maintenance of the transport operator's heavy vehicle fleet, including a Driver's Daily Pre-start Check and the reporting and rectification of faults or defects identified.

5.4.4 Driver Licence Verification

Transport Operators shall:

a. Ensure heavy vehicle drivers engaged (including subcontractors) hold an appropriate and valid class of licence for the vehicle in which they are engaged to drive.
b. Implement a process to periodically check and verify heavy vehicle driver licences, including their category, expiry date, and any restrictions are complied with.

5 Requirements

5.4.5 Driver Training and Competency

Transport Operators shall:

a. Ensure heavy vehicle drivers engaged (including subcontractors) have completed training[11] and obtained competencies in the following skills:
   - Vulnerable Road User awareness
   - Low-risk heavy vehicle driving skills
   - Safe loading and unloading
   - Load restraint
   - Pre-start vehicle inspection
   - Fatigue management
   - Beakdown safety

Refer to Appendix F – Driver Training and Competency Standard

b. Implement and maintain a Training Needs Analysis to identify and document the necessary training, competencies, and ongoing skills and knowledge development needs (including refresher training) for heavy vehicle drivers engaged by the transport operator.

5.4.6 Driver Fitness for Duty

Transport Operators shall:

a. Document and implement a pre-employment medical process which ensures drivers are medically assessed as per the Austroads' Assessing Fitness to Drive (AFTD) national driver medical standards.

b. Document and implement a process to check on the currency of the required periodic medical assessments of the heavy vehicle drivers, including any requirements for ongoing Health Surveillance.

c. Document and implement a Drug and Alcohol Policy and associated Drug and Alcohol Testing Program.

d. Document and implement a Fatigue Management Policy and Fatigue Management Procedures.
   i. Fatigue management procedures must include a process for heavy vehicle drivers to declare their fitness to drive prior to commencing and during work and to notify the operator if they are unfit for duty due to any lifestyle, health, or medical issues

Silver Accreditation Requirement

e. Implement documented procedures for ensuring heavy vehicle driver health and wellbeing, including health promotion strategies

Gold Accreditation Requirement

f. Undertake a workplace design and task analysis to identify any restrictions or limitations to the driver's workplace (i.e. vehicle cab design, ergonomics, access/ egress, etc.) and improvements that can be made to optimise the safety of the driver's workplace

5.4.7 Safe Driving Behaviours and Road Safety Culture

Transport Operators must:

a. Develop and implement a Driver Code of Conduct (or Safe Driving Policy) which clearly communicates the safe driving expectations when working for the Transport Operator at all times.

b. Develop and implement a mobile phone/ in-cab distraction policy which provides drivers with clear expectations as to the company's policy on the use of mobile phones and minimising in-cab distractions.

c. Develop and deliver a series of heavy vehicle driver toolbox talks which provide drivers with up-to-date and on-going knowledge and awareness of safety alerts, hazards, issues affecting the industry and work activities in relation to the operation of heavy vehicles in the construction sector.

d. Monitor safe driving behaviours on public roads and provide feedback to drivers periodically as determined by a risk assessment.
   i. Aspects of driving behaviour which must be monitored include driver speed, harsh acceleration and/ or braking, following distances/ crash avoidance space.

e. Implement a process to identify non-compliances and unsafe driving behaviours and establish corrective actions and disciplinary measures where appropriate.

Silver Accreditation Requirement

f. Implement a 'Reward and Recognition' program to identify, reward and recognise exemplary low risk driving standards and behaviours within the organisation and encourage its continual application.

Gold Accreditation Requirement

g. Have procedures in place to monitor, review and coach on safe heavy vehicle driving behaviours using a combination of telematics monitoring data, forward facing and in-cab camera footage.

11 Specific training requirements in relation to vulnerable road user awareness and low risk driving skills courses are outlined in Appendix F – Driver Training and Competency Standard.

5 Requirements

5.4.8 Incident and Performance Reporting

Transport Operators shall:

a. Ensure any transport-related incidents and complaints associated with the transport operator's activities and supply chain engaged are reported to (where relevant) and investigated in conjunction with the Principal Contractor to a level commensurate with the severity of the incident and/or complaint.

b. Ensure appropriate corrective actions and that the lessons learnt are disseminated to the CLOCS-A Community following any transport-related incidents or complaints where there was an actual or potential fatality or serious injury to a driver, worker or member of public.

5.4.9 Performance Reporting

Transport Operators shall:

a. Periodically report (Quarterly/ Annually/ Project to date) to the Principal Contractor on the following metrics throughout the duration of the construction project. Refer to Appendix D for CLOCS-A Reporting Metrics.

   i. Where major incidents and/ or non-conformances are observed, Transport Operators shall report these within the quarter as soon as reasonably practicable

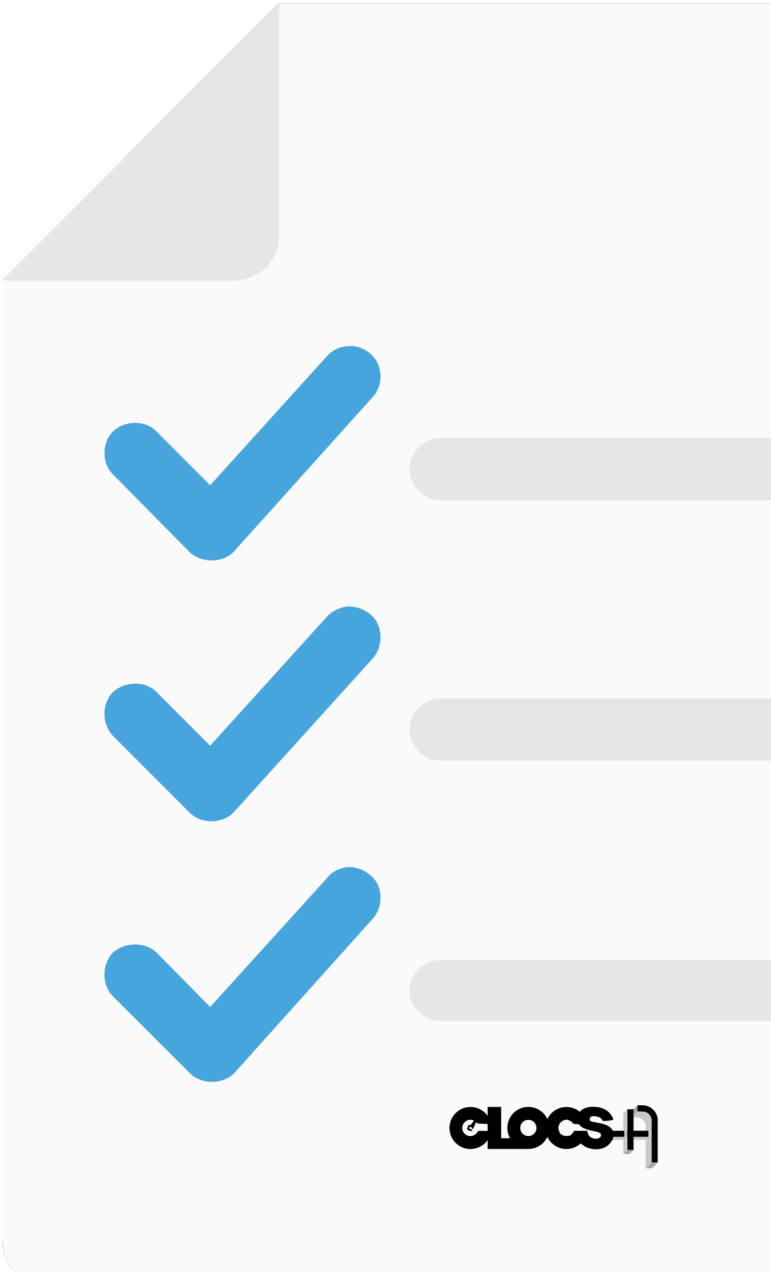
   ii. Where non-compliance is identified, an action plan to address all key issues shall be obtained and monitored

b. Report to the Principal Contractor on CLOCS-A Accreditation status periodically throughout project, notifying of when CLOCS-A audits have occurred, recommendations/ findings and any changes to accreditation and if applicable, details on the action plan to regain accreditation.

5.4.10 Communications and Engagement

Transport Operators shall:

a. Ensure implementation of Community Engagement Communications & Activities and Vehicle Branding is carried out in accordance with the Appendix B - Communications Standard.



6 Case Studies

The following section provides a number of case studies from industry champions who have implemented various initiatives and programs within their organisation under the CLOCS-A Standard.

Each case study has been developed with the intent to describe how the organisation went about implementing the specific initiative or program, how they overcame any challenges and the benefits the organisation has experienced since implementation.

Content to come

1. Left Turn Audible Alarm
    a. Stakeholder: Transurban
    b. Focus: Preventing Left-Turn Incidents and Protecting Vulnerable Road Users in the West Gate Tunnel Project with Left Turn Audible Alarms.
2. Left Turn Audible Alarm
    a. Stakeholder: MTIA
    b. Focus: Left-Turn Audible Alarms: Keeping Vulnerable Road Users Safe in Australia's Largest Transport
3. Side Underrun Protection (View here)
    a. Stakeholder: Eather Group
    b. Focus: A Proactive Approach to Protecting Vulnerable Road Users: The Eather Group's Implementation of Side Underrun Protection Systems.
4. Fleet Management Systems (Telematics)
    a. Stakeholder: John Holland/CPB Contractors
    b. Focus: Efficient Fleet Management: How Telematics Management Systems Transformed the Rozelle Interchange Project.
5. Be Truck Aware
    a. Stakeholder: Transport for NSW (TfNSW)
    b. Focus: TfNSW's Educational Campaign: Teaching the Community to 'Be Truck Aware' During Major Construction Projects.
6. Truck Ride Along
    a. Stakeholder: Holcim CLOCS-A, Holcim and NRSPP.
    b. Focus: Bridging the Gap between Heavy Vehicle Drivers and the Community.
7. Contract Clauses
    a. Stakeholder: Sydney Metro
    b. Focus: Sydney Metro's Case Study Contract Clause Improving Contractor Safety Practices.
8. Human Impact Risk Assessment (HIRA) TOOL
    a. Stakeholder: Victorian Department of Transport and Planning.
    b. Focus: Application of tool which can be used to assist route selection and avoid sensitive land use areas/ local roads.
9. Human Impact Risk Assessment (HIRA) TOOL
    a. Stakeholder: Victorian Department of Transport and Planning.
    b. Focus: Application of tool which can be used to assist route selection and avoid sensitive land use areas/ local roads.
10. Traffic Management (St Kilda Road)
    a. Stakeholder: Victorian Department of Transport and Planning.
    b. Focus: Safety management of traffic (trucks and vulnerable road users) on a major transport supply conduit for a major infrastructure project.
11. Swapping Seats
    a. Stakeholder: Victorian Department of Transport and Planning.
    b. Focus: Focused community engagement where trucks feature at public events/spaces to sit in a truck and understand what a driver can and cannot see.

7 Contacts and Further Information

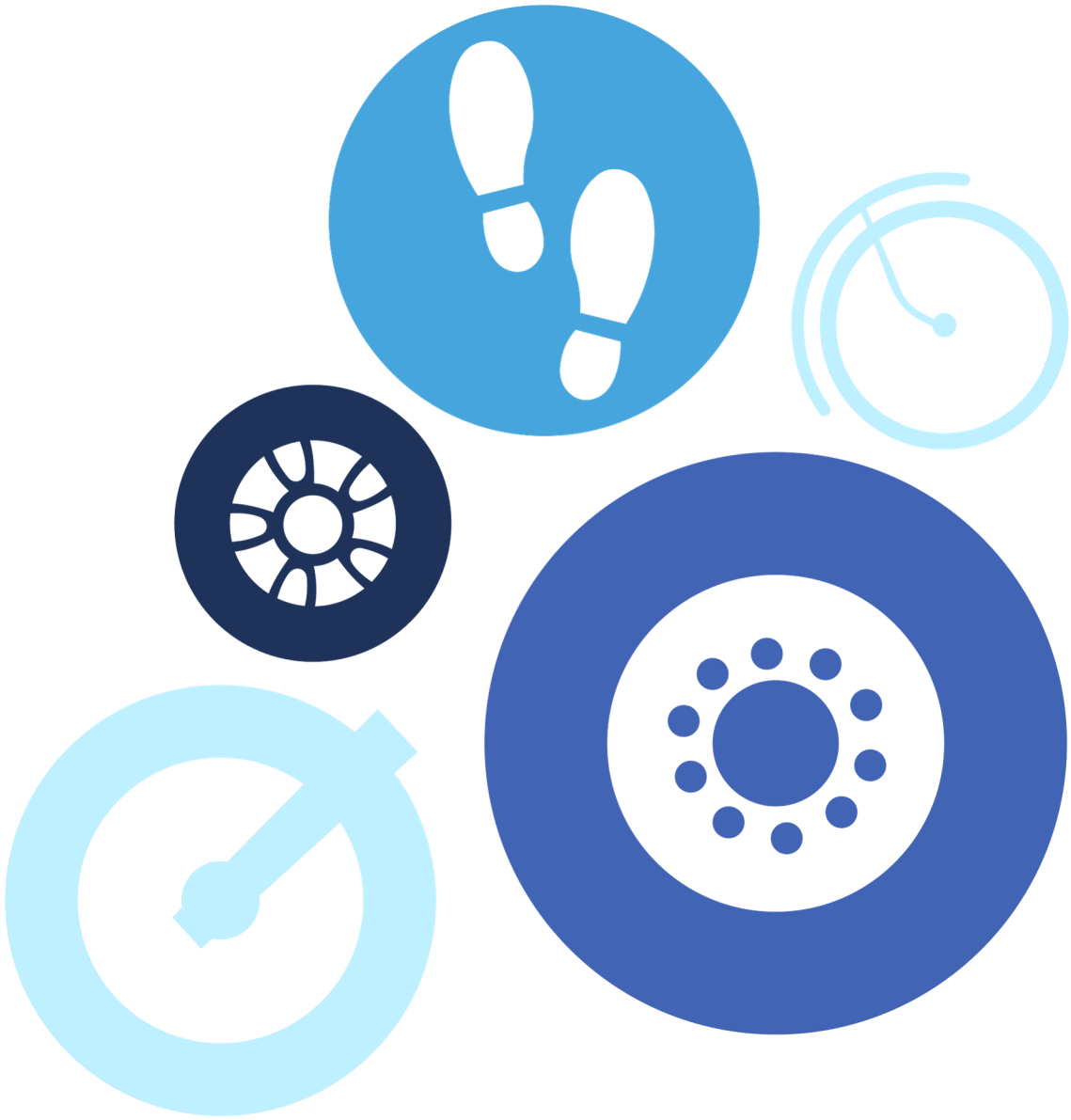
CLOCS-A Website

National Heavy Vehicle Regulator

Safe Work Australia

National Road Safety Partnership Program

CILTA



Appendix A – Construction Logistics Planned Measures

Planning a construction project's logistics can significantly reduce the impacts and risks to the community through measures which optimise the efficiency of logistics activities. Optimisation of construction logistics can lead to significant reduction in the number and frequency of heavy vehicle movements on a construction project through measures such as:

A.1 Mode Shift

Using transport modes, such as by rail or marine methods as an alternative to roads, can be a cost-effective and efficient way of transporting a range of construction materials, plant and equipment and can be considered by infrastructure and construction projects located in proximity to nearby rail freight lines and/or waterways.

Such alternative modes provide additional sustainable benefits by reducing vehicle emissions and improving safety by significantly reducing construction vehicle movements.

A.2 Re-Use of Materials

Re-use of materials, such as excavated spoil and earthworks within a construction site boundary is also an effective way of eliminating or reducing construction transport off-site and can provide sustainable benefits by contributing to a project's waste management objectives.

A.3 Prefabrication

Prefabrication of structures off-site can reduce the number of construction vehicle movements required to deliver construction materials, plant, and equipment to sites.

In addition, prefabricated structures which are over-size/ over-mass can be transported to site in a more highly controlled manner outside peak periods, under escort, with careful route assessment and planning.

Not only does prefabrication reduce risks on the road, but it can also minimise on-site WHS risks, by reducing site congestion and the need to carry-out various high-risk construction activities in order to build the structure on site.

A.4 Higher-Productivity Vehicles

Optimising the efficiency of construction heavy vehicles used on infrastructure and construction projects can provide both productivity and safety benefits to the project through the use of higher-productivity or performance-based standards (PBS) heavy vehicles.

Such vehicles can carry higher payloads compared to general access heavy vehicles operating under regulatory general mass limits, thereby reducing the overall number of heavy vehicle movements required.

A.5 Consolidating Loads/Deliveries

Heavy vehicle transport for construction can also be optimised by consolidating deliveries or loads onto one vehicle destined for a project with multiple sites or multiple construction projects located nearby using a common supplier.

A.6 Delivery Scheduling

Scheduling and retiming deliveries to avoid peak periods can naturally reduce congestion and exposure risk. Planning deliveries during less congested hours allows site- related vehicles to operate more efficiently and reduce the risk of collisions.

Construction deliveries and collections made outside of peak traffic times are also more likely to arrive on time, which can reduce potential on-site delays. They also reduce congestion in the vicinity of the site.

Utilising a Delivery Management System (DMS) – whether electronic or paper-based – can significantly improve the reliability of delivery for critical items and coordination of a site's booking and delivery process, ensuring the flow of vehicles to and from sites are controlled.

Delivery management systems are also recommended to ensure that everyone in the transport supply chain is able to:

- Confirm the routes taken by vehicles in their journey to and from site
- Ensure that site supervisors are trained in what technologies vehicles arriving on site should be fitted with
- Have a process for checking the driver has appropriate training
- Achieve efficiency improvements to project logistics.

Appendix A – Construction Logistics Planned Measures

A.7 Truck Marshalling

Where construction sites are limited for space, providing off-site truck marshalling facilities or approved marshalling areas en-route to site in collaboration with local authorities can reduce heavy vehicle movements from circling construction sites that are waiting to be 'called-in' or construction vehicles parking in unapproved locations which might pose a hazard to other road users (i.e. by obscuring sight distance or blocking visibility to local driveways or pedestrian crossings).

Providing such facilities can reduce emissions, fuel consumption and road safety risks, however requires collaboration from local authorities.

A.8 Haul Roads and Site Standards

Sites should be designed in such a way that sufficient space is provided for laydown of materials and to prevent heavy vehicles queuing on local roads outside the construction site or in nearby streets.

Ground conditions for site haulage routes and load/unload areas should take into account the clearance requirements for on-road heavy vehicles, including rear overhang, and ground clearance for safer vehicle designs such as heavy vehicles with low-entry direct vision cabs and side/rear underrun protection.

Consideration should also be given to longitudinal and transverse land slopes and the impact this could have on the safe operation of heavy vehicles such as articulated dump trucks, truck and trailers, tilt tray vehicles and low loaders transporting large plan.

Appendix B – Communications Standard

Note: Communications Standards are applicable to all CLOCS-A accredited projects regardless of otherwise specified tier requirements.

No.	Communication Focus	Item	CLOCS-A Tiers		Responsible Stakeholder						
			Small Projects (Basic – Bronze) (Risk based TBD)	Medium-Large Projects Silver/ Gold (Advanced) (Risk Based TBD)	Government + Regulators	Developers + Project Providers	Primary Contractors	Vehicle + Transport Operators	Community	Local Govt	Industry Groups
1	Contract Clauses	Add communications engagement clause into contract requirements	All CLOCS-A sites	All Clocs-A sites	■	■	■		■	■	■
2	CLOCS-A Member	As a CLOCS-A Member will act as a champion for the program to those it operates/interacts with	CLOCS-A Membership logo and act as a champion.	CLOCS-A Membership logo and act as a champion.	■	■	■	■		■	■
3	Community Engagement Communications & Activities	CLOCS-A tier Membership insignia	All site entrances	All site entrances			■				
4		Contractor safety branding	All site entrances	All site entrances and surround fences (Depending upon govt requirements and conditions)			■				
5		Allocate and maintain primary contact's details	Yes	Yes		■	■	■		■	
6		CLOCS-A community engagement process	Start and life of project	Start and life of project		■			■	■	
7		Community engagement along logistics routes and local communities (communication activation campaign in a local area)	As per CLOCS-A guidelines	As per CLOCS-A guidelines			■		■		
8		CLOCS-A safety messaging at locations of higher risk or conflict points	As per CLOCS-A guidelines	As per CLOCS-A guidelines		■			■	■	
9		CLOCS-A community road safety activations, engagement and awareness activities (swapping seats, Truck Aware, Ride Along etc.)	Safety Communication Campaign: Digital, print and social media engagement	Safety Communication Campaign: Digital, print, social media and in-person activations		■			■	■	■
10		CLOCS-A Case Study and Learnings (As per Template)	One per project	Three per project		■	■			■	
11		Some form of monitoring of community complaints over time	Monthly	Monthly		■				■	
12	Vehicle Branding & Communications	CLOCS-A tier Membership insignia	All vehicles	All vehicles				■			
13		CLOCS-A Be Truck Aware example or similar campaign (style)	30% of trucks related to monthly movements	80% of trucks related to monthly movements				■			
14		CLOCS-A Cyclists aware branding	All vehicles	All vehicles				■			
15		CLOCS-A case study (as per template)	One per project	Three per project				■			
16		Vehicle activation partner (e.g. Ride Along)	N/A	Provide trucks and drivers for in-person activations as needed				■			
17		Truck maintained clean and presentable	All trucks	All trucks				■			

Appendix C – Construction Logistics Management Plan Criteria

The CLMP shall address the following criteria:

a. Identify those construction personnel who will be responsible for the coordination and leadership of the CLOCS-A implementation, oversight, reporting and updating and the community stakeholders with whom they must engage. This must be documented and communicated to the project team and community stakeholders on the project by the Principal Contractor.

b. Detail the project's construction logistics objectives and how they will be achieved.

c. Detail the project's risk assessment of construction transport activities and specify the safest vehicle routes and identified acceptable reasons for any time-to-time deviations.

d. Provide appropriate procurement clauses to be issued in tender documents and describe how they align with the Goals of CLOCS-A.

e. Provide the forecasted construction logistics activities and material deliveries over each phase of the construction project as best known at the time of developing the CLMP and subject to regular updating.

f. Document required approvals and permits by level of government and application dates and duration, including:
   i. Site Access for vehicle types
   ii. By route for each truck type
   iii. Over dimensional movements
   iv. Time of day movements approvals
   v. Parking permission approvals (If applicable)
   vi. Impact on public transport vehicles

g. Detail the Planned Measures considered and implemented to reduce impacts and risks on the project and detail the reasons why particular measures considered were not adopted

h. Identify appropriate community stakeholder considerations.

i. Have regular input from significant project representatives and transport operators.

j. Be updated within 1 month of changes to processes, plans or operating procedures.

Appendix D – CLOCS-A Reporting Metrics

D1 Principal Contractor Reporting

CLOCS-A Reporting Metrics shall be reported quarterly and annually to the Client of the Construction project, including the following:

- Collisions involving construction vehicles servicing the project – Major, serious, moderate by own fleet and/or by contractor fleet, detailing:
  - Fatal incidents involving construction vehicles
  - Serious injury incidents involving construction vehicles
  - Truck type/configuration involved
- Number of heavy vehicle movements/deliveries to project
- Number of heavy vehicles on project
- Number of construction traffic/ transport related complaints
- % Of transport subcontractors accredited to CLOCS-A
- Number of compliant construction vehicles to CLOCS-A Standard
- Number of compliant drivers to CLOCS-A Standard
- Number of Community Engagement Activities

D2 Transport Operator Reporting

CLOCS-A Reporting Metrics shall be reported quarterly and annually to the Principal Contractor of the Construction project, including the following:

- Collisions involving the transport operators' vehicles servicing the project – Major, serious, moderate by own fleet and/or by sub-contractor fleet, detailing:
  - Fatal incidents involving construction vehicles
  - Serious injury incidents involving construction vehicles
  - Truck type/configuration involved
- Number of heavy vehicle movements/deliveries to Principal Contractor's construction sites
- Number of heavy vehicles allocated to the project
- Status of CLOCS-A Accreditation
- Number of Community Engagement Activities

Appendix E – CLOCS-A Vehicle Safety Specification

E1 CLOCS-A Vehicle Safety Specification

Accreditation Level	Description	Vehicle Safety Requirement Level
Bronze	The Minimum Mandatory Standard for all heavy vehicles complying with CLOCS-A technical requirements. Measures and technologies that are relatively low cost and easy to implement. Accreditation requires compliance with at least one of the standards nominated as "either/OR" plus all remaining standards.	• No solid, clear or coloured bug deflectors mounted on bonneted trucks - City and Urban projects only • No external engine air intake hardware above bonnet level (on bonneted trucks) - City and Urban projects only • No large inappropriate bullbars that rise above the standard overall bumper height for the particular vehicle - City and Urban projects only • No inappropriate sunvisors that protrude below the tinted band on the windscreen or the swept path of the wipers • No overly large lettering or decals attached to any part of the windscreen • No excessive tinting of the windscreen or side windows that reduces light transmittance beyond legal levels • No inappropriate fitment or aftermarket accessories (such as screens or mobile phones) inside the cab that create blind spots and/or restrict the driver's field of view • Fresnel lens on front and/or "peeper" window OR approved front/ left-side cameras or proximity sensors • Amber beacons fitted to the roof of the cabin • Class V (Passenger side) and VI (front) blind spot mirrors • Reverse beepers • Conspicuity markings with retro-reflective tape • High visibility drawbar colour scheme • Vulnerable Road User warning signage • Wheel-nut position indicators • Either Reversing cameras OR Reversing sensors
Silver	A higher standard of equipment that is preferred for heavy vehicles complying with CLOCS-A technical requirements. Similar to UK CLOCS and broadly aligned to current NSW/VIC Government Major projects. Accreditation requires compliance with at least one of the standards nominated as "either/OR" plus all remaining standards where applicable.	Achievement of Bronze Accreditation, plus the following: • Daytime running lamps • Left turn audible warning • Front Underrun Protection - Trucks • Side Underrun Protection Devices or lateral Protection devices - Trucks/Trailers • Rear Underrun Protection • ABS - for trucks • ABS - for trailers • ADR 80/03 Emission Standard (Euro V) • Either Left-side blind spot cameras OR Left-side proximity sensors
Gold	The highest standard of equipment that is being sought for heavy vehicles complying with CLOCS-A technical requirements. Encourages leading safety technologies & to future-proof vehicles. Accreditation requires the fitment of telematics plus compliance to a minimum of 4 of the remaining standards where applicable.	Achievement of Silver Accreditation, plus the following: • Telematics Monitoring System • Electronic Stability Control (Trucks) • Roll Stability Control (Trailers) • Advanced Emergency Braking • Autonomous Reverse Braking • ADR 80/04 Emission Standard (EURO VI) OR Zero Emission Vehicle

Note: For further explanation and detail on all of the above Heavy Vehicle Safety Specifications, refer to the CLOCS-A Heavy Vehicle Inspection Guide.

Appendix F – Driver Training and Competency Standard

F1 Vulnerable Road User Awareness Training Requirements per Accreditation Level

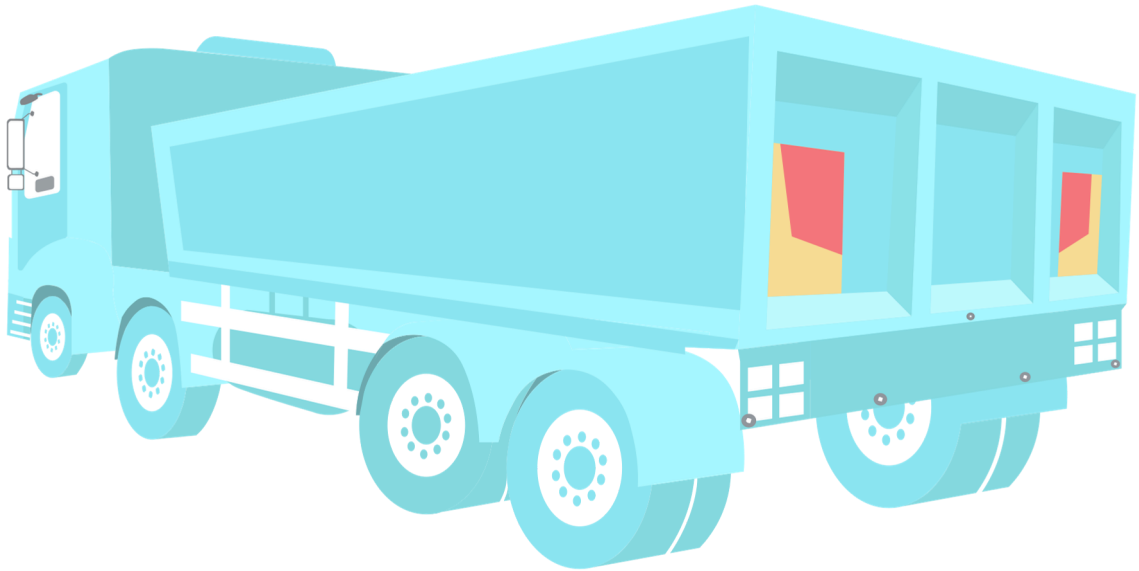
Accreditation Requirement	Training Requirement	Knowledge/Content/ Assessment	Acceptable Delivery Methods
Bronze	Vulnerable Road User Awareness Training – Basic	• Introduction to the Safe System • Growing population and construction • Introduction to different road user types • Introduction to different vulnerable road users, level of vulnerability and associated risks • Common hazardous scenarios, crash types with vulnerable road users • Overview of driving techniques and skills (e.g. scanning, buffering, etc.) to anticipate and share road safely with VRUs, including trusting in driver's own awareness • Overview of vehicle safety standards (CLOCS-A) Bronze, Silver, Gold – their purpose, function and limitations (including crash reduction factors) • Overview of route planning and its influence on road safety (i.e. to avoid locations/ times where VRUs are likely to be present) Assessment: • Multiple choice individual assessment required	• In-house training facilitation using handouts/ PowerPoint-style or via eLearning-style module
Silver	Vulnerable Road User Awareness Training – Intermediate	As per Bronze Requirements. In addition: Interactive group discussion activity and additional assessment requirements. Assessment: • As per Bronze requirements, plus • Group Activity • Short Answer Exam-style Questions	• In-house training facilitation using handout/ PowerPoint-style or via online platform (MS Teams, Zoom, etc.)
Gold	Vulnerable Road User Awareness Training – Advanced	As per Silver Requirements. In addition: • Provide drivers opportunity to understand limitations to existing infrastructure and construction impacts on traffic and road environments in practical real-life environment. • Drivers can explore first-hand how it feels to be a vulnerable road user. • Improve health through increased active transport. Assessment: • As per Silver Assessment requirements, plus: • Practical assessment and in-field observations	• In-house training facilitation using handouts/ PowerPoint-style or via online platform (MS Teams, Zoom, etc.) • Practical site visit involving walking tour of project haulage routes, on-bike tour or an equivalent practical or simulated experience

Appendix F – Driver Training and Competency Standard

F2 Low Risk Driving Skills Training Requirements per Accreditation Level

The following skillset is required to be obtained by heavy vehicle drivers to be deemed competent in "Low-risk heavy vehicle driving":

- Hazard identification, observation and scanning
- Speed limits and speed management
- Road positioning and buffering
- Crash avoidance space
- Safe overtaking and lane changing
- Safe reversing and spotters



Change Log

Version	Change Description	Page	Change Date	Comments
1.6	• Inclusion of "OR approved front/left-side cameras or proximity sensors" as alternatives under the Fresnel lens / peeper window bullet in Bronze Vehicle Safety Requirements.	22	21.04.2026	Requested by KW
1.5	• Inclusion of Site Definition	6	19.03.2026	Requested by MH
1.4	• Inclusion of clause 5.4.2 Vehicle Safety Requirements and renumbering of subsequent clauses under "Stakeholder Group 4 – Transport Operators" section.	11	05.12.2025	Requested by MH
1.3	• Inclusion of "Side Underrun Protection Devices or lateral Protection devices - Trucks/Trailers" in the Vehicle Safety Requirement Level column, Silver accreditation level of Appendix E - CLOCS-A Vehicle Safety Specification table. • Removed reference to "Front Underrun Protection - Trailers" from the Vehicle Safety Requirement Level column, Silver accreditation level in Appendix E - CLOCS-A Vehicle Safety Specification table.	21	10.07.2025	Requested by KW
1.2	• Changed "ADR 80/30 Emission (Euro V)" for "ADR 80/03 Emission (Euro V)" in the Vehicle Safety Requirement Level column, Silver accreditation level of Appendix E - CLOCS-A Vehicle Safety Specification. • Changed "ADR 80/40 Emission (Euro VI)" for "ADR 80/04 Emission (Euro VI)" in the Vehicle Safety Requirement Level column, Gold accreditation level of Appendix E - CLOCS-A Vehicle Safety Specification.	21	22.05.2024	Requested by PC
1.1	• Changed footnote in Appendix E from "For further explanation and detail on all of the above Heavy Vehicle Safety Specifications, refer to the CLOCS-A Vehicle Safety Guide (under development)" for "For further explanation and detail on all of the above Heavy Vehicle Safety Specifications, refer to the CLOCS-A Heavy Vehicle Inspection Guide".	21	12.04.2024	Requested by KH

Version Control

Version	Change Date	Comments
1.0	10.08.2023	Approved by CLOCS-A SG
1.1	12.04.2024	Updated and published on CLOCS-A website
1.2	22.05.2024	Updated and published on CLOCS-A website
1.3	24.07.2025	Updated and published on CLOCS-A website
1.4	05.12.2025	Updated and published on CLOCS-A website
1.5	19.03.2026	Updated and published on CLOCS-A website
1.6	21.04.2026	Updated and published on CLOCS-A website
Last review date	20.04.2026	
Next Review date	August 2026	