

Construction Traffic Safety by Shereen Montero

**A Comprehensive Training Guide on Malaysian Regulations and
Standards**

Malaysian Regulatory Framework

Safety on Malaysian construction sites is governed by a strict legal framework designed to reduce workplace risks through employer accountability and coordination.

OSHA 1994 (Act 514)

Primary safety framework, recently amended by Act A1648 to enforce higher accountability.

CDM Regulations 2024

Mandatory risk-based coordination throughout the project lifecycle effective June 2024.

Act A1648 (2022)

Requires OSH Coordinators for sites with 5+ workers as of June 1, 2024.

Safety Performance Statistics

6.30

Deaths per 100,000 Workers
in Construction (2025)

2.46

Injuries per 1,000 Workers
National Rate (2023)

Construction Fatality



6.3

All-Sector Average

2.1

Site Traffic Management Plans

An effective Site Traffic Management Plan (STMP) is the primary defense against vehicle-related injuries on Malaysian construction projects.

- Designated entry/exit points for all site vehicles
- Segregated routes for pedestrians and vehicles
- Speed control measures (humps, 15-20 km/h limits)
- Loading/unloading zones away from footpaths
- Clear signage for hazardous moving parts



Segregation of Pedestrians

Physical Barriers

Use heavy-duty fencing, water-filled barriers, or concrete blocks to physically separate walking zones from vehicle tracks.

Designated Crossings

Ensure all pedestrian crossings are clearly marked, well-lit, and provide unobstructed sightlines for drivers.

Pedestrians are the 3rd highest casualty group in Malaysia, averaging 45 deaths per month. Strict site segregation is non-negotiable.

Speed Limits & Signage

Signage Type	Standard Used
Temporary Traffic	JKR ATJ 2C/85
Site Warning	ANSI / ISO 3864
Speed Limit	15 – 20 km/h



All signage must be reflective and visible under under low-light conditions. Speed limits are are restricted to minimize impact severity and and protect ground workers.

Safe Vehicle Movement

Eliminate Reversing: Plan site layouts for one-way systems to avoid the need for reversing machinery wherever possible.

Use of Banksmen: When reversing is unavoidable, use trained signallers (banksmen) wearing distinct high-visibility apparel.

Mechanical Aids: Equip vehicles with reverse alarms, flashing beacons, and rear-view cameras to assist operator visibility.

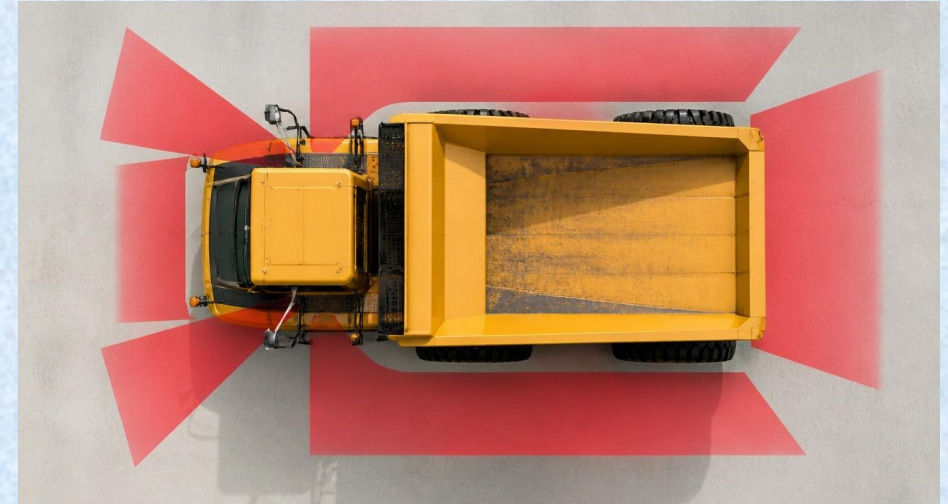
Blind-Spot Awareness

Heavy vehicles like excavators and dump trucks have extensive blind spots. Every ground worker must be trained on 'No-Go Zones' around machinery. machinery.

4,000+

Annual Motorcycle Fatalities in Malaysia

Highlights the extreme danger of heavy vehicle blind spots.



Operator Competency & Training

Ensuring drivers are qualified and machinery is fit for use is for use is a mandatory legal requirement under DOSH DOSH guidelines to prevent mechanical and human error. error.

Machinery Standards

- Renew CF/PMA every 15 months
- Daily pre-start vehicle inspections
- Valid license (GDL/E) for all drivers
- Specific competency for lifting gear



High-Visibility PPE



Section 15 of OSHA 1994 mandates the provision of protective gear. For traffic safety, workers must be visible to operators from all angles, even in poor weather.

Standard Requirements

- DOSH-Approved reflective gear
- Class 2 or 3 High-Vis vests
- Clean and undamaged panels
- Mandatory use during night shifts

Hazard Communication

Communication is key to preventing accidents. All workers must be briefed on site-specific traffic hazards and current vehicle movement plans.

Toolbox Talks

Daily morning briefings highlighting vehicle entry points, heavy lifting zones, and any changes to the traffic management layout.

Signalling Protocols

Standardized hand signals for banksmen and clear radio communication channels between operators and site supervisors.

Emergency Response Procedures

1. Stop and Secure: Immediately stop all vehicle movement in the incident zone and turn off turn off engines.

2. Alert and Assist: Notify trained first aiders and site management. Do not move injured persons unless necessary.

3. Report Incident: Inform DOSH (JKKP) within 24 hours for any serious bodily injury as per legal requirements.

Compliance & Penalties

The 2022 Amendment to OSHA 1994 significantly increased the cost of non-compliance to ensure executive and corporate accountability.

RM 500,000

Maximum Fine for General Duty Breach
(Increased from RM 50,000)

Under Section 29A, directors and managers can now be held personally liable for systemic safety failures within the organization.

Safety is No Accident.

Commit to zero-harm through discipline, planning, and vigilance.

Protect your workers. Protect the public. Protect the future.

THANK YOU