

Motorway bus-only lanes guidance

An addendum to Traffic Control Devices Manual Part 10 Motorways and expressways

Waka Kotahi NZ Transport Agency 4 May 2023 Version 1.0







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More information

Waka Kotahi NZ Transport Agency Published May 2023

ISBN Number: 978-1-99-106876-7

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1. Scope

This guidance document specifically relates to motorway bus-only lanes installed within the shoulder area of motorways and is to be considered as an addendum to the Waka Kotahi NZ Transport Agency (Waka Kotahi) Traffic Control Devices Manual Part 10 – Motorways and expressways (TCDM-10). This document replaces TCDM-10 section 12.8. Table 1 below shows how the content of this addendum relates to the superseded TCDM-10 section 12.8 guidance content.

Table 1: The sections of this addendum, and which sections of TCDM-10 they replace

Addendum section number	Replaces
Section 1, Scope	TCDM-10 section 12.8.1
Section 2, Definitions	New text
Section 3, Terminology - law or good practice	New text
Section 4, Legislation	New text
Section 5, Signs	TCDM-10 section 12.8.2
Section 6, Road Markings	TCDM-10 section 12.8.3
Section 7, Typical Layouts	TCDM-10 figure 12.14

Refer to the part 5 of the Traffic Control Devices Manual for guidance on other types of special vehicle lanes, all special vehicle lanes for use on roads other than motorways, cycle lanes and cycle paths.

2. Definitions

Bus

Defined in the Land Transport (Road User) Rule 2004 as "a passenger service vehicle that has more than 9 seating positions (including the driver's seating position)"

Bus lane

Defined in the Road User Rule as "a lane reserved by a marking or sign installed at the start of the lane and at each point at which the lane resumes after an intersection for the use of:

- (a) buses; and
- (b) cycles, mopeds, and motorcycles (unless 1 or more are specifically excluded by the marking or sign); and
- (c) electric vehicles (if specifically included by the marking or sign)."

Bus-only lane

Defined in the Traffic Control Devices Rule as "a lane reserved for the use of buses only"

Bus-only lane through running

Where buses are permitted to run through a modified exit gore area and/or onramp gore area which permits the bus to continue through a motorway interchange without the need to leave and join the general traffic lanes on the motorway mainline.

Emergency stopping lane

The meaning is set out in subclause 2.12(3) of the Land Transport (Road User) Rule 2004. "A lane that is available only for:

- avoiding a collision or stopping in an emergency,
- stopping in the event the driver's vehicle is disabled, or
- use by a specified class or classes of vehicles where the driver is
 operating a vehicle of that specified class or one of those specified
 classes, where a sign at the entrance to the lane indicates these vehicles
 may use the lane during the time specified on the sign."

Large passenger service vehicle

Defined in the Land Transport Act 1998 as "any passenger service vehicle that is designed or adapted to carry more than 12 persons (including the driver)"

Passenger service

Defined in the Land Transport Act 1998;

"(a) Means—

- (i) the carriage of passengers on any road for hire or reward by means of a motor vehicle; and
- (ii) (ii) the carriage of passengers on any road, whether or not for hire or reward, by means of a large passenger service vehicle; and
- (b) includes the carriage of passengers on any road—
 - that involves a specific charge on passengers for transport, including part payments to cover fuel and donations (which are expected as a condition of carriage); or
 - (ii) by a person or an organisation that is funded by another person or organisation specifically for the provision of transport; or
 - (iii) after a connection between a passenger and a small passenger service facilitated by a facilitator; or
 - (iv) in which the carriage of passengers is an integral part of, or reasonably necessary to provide, another service or activity (other than a transport service) for which payment is made; or
 - (v) in which the carriage of passengers is made using the vehicle provided by one of the passengers and the driver is paid for the carriage; or
 - (vi) that involves the letting on hire of a vehicle by a person who drives the vehicle or provides a driver for the vehicle if, during the hiring, the vehicle is used for the carriage of passengers; but

(c) does not include—

- (i) private ambulance services provided by organisations primarily for their employees, being ambulance services that are available to the general public in an emergency only when public ambulance services cannot provide a service; or
- (ii) any service using a vehicle that is specified as an exempt passenger service vehicle in the regulations or the rules; or
- (iii) any service specified as an exempt passenger service in the regulations or the rules"

Passenger service vehicle

Defined in the Land Transport Act 1998;

- "(a) Means a vehicle used or available for use in a passenger service for the carriage of passengers; but
- (b) Does not include-
 - (i) a vehicle designed or adapted to carry 12 or fewer persons (including the driver) provided by one of the passengers being carried; or
 - (ii) a vehicle specified as an exempt passenger service vehicle in the regulations or the rules"

Shoulder

Defined in the Traffic Control Devices Rule as "any part of a road not designed to be used by motor vehicles in travelling along the road and, on a sealed road, includes:

- (a) any unsealed part of the road; and
- (b) any sealed part of the road outside an edgeline on the road."

Special vehicle lane

Defined in the Traffic Control Devices Rule as "a lane defined by signs or markings as restricted to a specified class or classes of vehicle; and includes a bus lane, a transit lane, a cycle lane, and a light rail vehicle lane."

3. Terminology - law or good practice

This document outlines the legal framework and responsibilities for the design and installation of bus-only lanes on motorways. This includes the general principles behind their use at the time the document has been drafted. It should not be used in substitution for professional advice as to compliance with relevant central and local government requirements.

The following terminology is used within the document to determine whether an aspect or statement made is a requirement under law or good practice. These terms are:

- must indicates something that is mandatory or required by law
- **should** indicates a recommendation to meet best industry practice
- may indicates something that is optional and may be considered for use.

4. Legislation

4.1 Bus-only lane

A bus-only lane is a specific type of special vehicle lane. A road controlling authority that is setting aside a specific area of the roadway as a bus-only lane, must provide traffic control devices as detailed within the specific types of lanes provided for in the Traffic Control Devices Rule.

Specifically, as stated in clause 11.2 of the Traffic Control Devices Rule:

"(1) If defining a part of a road as a special vehicle lane, a road controlling authority must, at the start of the special vehicle lane and after each intersection, along its length:

(a) mark on the road surface a white symbol, that complies with Schedule 2, defining the class or classes of vehicle for which the lane has been reserved; and

if for other than a 24-hour restriction, install a special vehicle lane sign that complies with Schedule 1:

(b) defining the class or classes of vehicle for which the lane has been reserved; and

- (i) stating the periods for which the reservation applies.
- (2) A road controlling authority may provide the following traffic control devices to discourage use of a special vehicle lane by other vehicles, or to draw attention to the likely presence of vehicles entitled to the use of the lane:
 - (a) additional white special vehicle lane symbols described in 11.2(1)(a) or signs described in 11.2(1)(b) along the length of the lane; or
 - if for a 24-hour restriction, special vehicle lane signs; or
 - a surface treatment that provides a contrasting colour or texture to that of adjacent lanes used by other vehicles:
 - (b) at locations along the length of the lane; or
 - (i) along the length of the lane."

Road controlling authorities should also note that clauses 2.3(4) of the Land Transport Road User Rule 2004 specifies that:

- "(1) A driver may also drive wholly or partly in a lane that is unavailable to the driver under subclause (1) or clause 4.6(2) to (4) if the driver-
 - (a) Drives in the lane to cross it to-
 - (b) Make a turn; or
 - (c) Leave a road; or
 - (d) Enter a marked lane or line of traffic from the side of the road; or
 - (e) Enter a marked lane or line of traffic from another marked lane; or
 - (f) Park in a place clear of a special vehicle lane, if the lane that the driver crosses is a special vehicle lane; or
 - (g) Enter a specified stopping place or loading zone to pick up or drop off passengers or a load, if the driver is driving a passenger service vehicle or goods vehicle and he lane that the driver crosses is not reserved for a vehicle of that class; and
 - (h) Drives in the lane for the minimum length necessary to complete the manoeuvre and for no more than a maximum length of 50 m; and
 - (i) Gives way to vehicles entitled to use the lane."

"6.6 Parking in special vehicle lane

A driver or person in charge of a vehicle must not stop, stand, or park the vehicle in any special vehicle lane unless—

- (a) the vehicle belongs to a class of vehicle for which use of the lane is reserved, and stopping, standing, or parking of the vehicle is permitted at that place by signs or markings; or
- (b) the vehicle is an emergency vehicle that is being used in an emergency and is operating a red beacon or red and blue beacons; or
- (c) the vehicle is a bus and the special vehicle lane is a cycle lane and the bus stops at a bus stop to allow passengers to board or alight."

4.2 Emergency stopping lanes

Bus only lanes that are installed within the shoulder area of a motorway and operate during specified times only, must also be signed as emergency stopping lanes. This is to ensure that drivers cannot use this area as a general lane outside the hours of operation of the bus-only lane.

Road controlling authorities should note that section 2.12 of the Land Transport (Road User) Rule 2004, states that:

- "(3) a driver must not drive in an emergency stopping lane unless—
 - (a) the driver needs to drive in it to avoid a collision or to stop in an emergency; or
 - (b) the driver's vehicle is disabled; or

(c) a sign at the entrance to the lane indicates vehicles of a specified class or classes may use the lane during the time specified on the sign and the driver is operating a vehicle of that specified class or one of those specified classes."

Traffic Control Devices Rule, Schedule 1 of the Traffic Control Devices Rule specifies the form and minimum specifications of signs to be used for Emergency Stopping Lanes. (Refer to the Traffic Control Devices Rule Part 3, Schedule 1, section R4-12, R4-12.1 and R4-12.2 and TCDM Sign specifications).

5. Signs

The requirements for signing and signs for motorway bus-only lanes are listed in Table 2. The associated road markings are shown in Section 6 and typical layouts shown in Section 7 of this addendum.

Specific sign detail information can be found in the TCD manual sign specifications and Schedule 1 of the Traffic Control Devices Rule.

- Sign specifications
- TCD Rule

Table 2: Signs

Sign code and name	Example	Description / use
Bus-only Rule: R4-7.1		Must be installed on sections of the motorway that are gazetted for use as busonly lanes at all times.
	ONLY	Additional words to indicate the start or end of the restriction should be shown on supplementary plates installed immediately below the R4-7.1 signs. For sign locations, see Table 1 notes.
Bus-only - Single Period Rule: R4-7.2	ONLY 7.30-9.30AM MON-FRI	Must be installed where sections of emergency shoulder on motorways are gazetted for use during peak periods as bus-only lanes. Additional words to indicate the start or end of the restriction should be shown on supplementary plates installed immediately below R4-7.2 and R4-7.3 signs. For sign locations, see Table 1 notes.

Sign code and name	Example	Description / use
Bus-only - Two Periods Rule: R4-7.3	ONLY 7.30-9.30AM 4.00-6.00PM MON-FRI	
Emergency Stopping Lane (combination) Rule: R4-12.2	EMERGENCY STOPPING LANE	Must be installed on sections of the motorway that are bus-only lanes operating during specified periods only. Installed in combination with a bus-only lane (or bus lane) sign that displays the times when the bus-only lane operates. The R4-12.2 sign is installed ABOVE the bus-only lane sign. These should be used at the start of the bus-only lane and on repeater signs, but not at the end of the bus-only lane. The width of this sign should match the width of the R4-12.2 sign with which it is used.
Supplementary 'Begins', Rule: R7-2.1	BEGINS	Should be installed as a supplementary sign underneath the R4-7.1, R4-7.2 or R4-7.3 sign marking the start of the bus-only lane. The width of a supplementary plate should match the width of the sign with which it is used.
Supplementary 'Ends' Rule: R7-2.2	ENDS	Should be installed as a supplementary sign underneath the R4-7.1, R4-7.2 or R4-7.3 sign marking the end of the bus-only lane. The width of a supplementary plate should match the width of the sign with which it is used.
Advance advisory Busonly Rule: A42-6	ONLY	May be used in advance of the bus-only lane beginning to indicate that a bus lane is ahead.

Sign code and name	Example	Description / use
Advance advisory special vehicle lane supplementary - [distance] m Rule: A42-6.1	100 m	May be used to advise road users that a bus-only lane begins at the distance ahead, must be used with an A42-6 or A50-1.
General Advisory Sign " BUSES MERGING FROM LEFT" Rule: A50-1	BUSES MERGING FROM LEFT	Should be used on bus-only lane through running sites, where the bus-only lane merges into an adjacent lane drop lane. To be installed 100m ahead of the end of the bus-only lane.
General Advisory Sign "BUSES MERGING FROM RIGHT" Rule: A50-1	BUSES MERGING FROM RIGHT	Should be used in a gated arrangement on the on-ramp approach to a bus-only lane through running arrangement, where intervisibility between the bus-only lane and the on-ramp is limited.
General Advisory Sign "BUS ONLY LANE MAX SPEED 60km/h" Rule A50-1	BUS ONLY LANE MAX SPEED 60 km/h	Should be positioned within each interchange for bus-only lane through running sites, approximately 60m from the 'Bus-only Begins' sign, to ensure bus drivers are aware of the requirement and make it undesirable to use the bus-only lane when they can drive faster in the traffic lanes. Should be installed along with an associated '60' road marking.

Table 2 notes:

- 1. Motorway bus priority should be provided in the form of bus-only lanes (as opposed to bus lanes) for safety reasons.
- 2. Motorway bus-only lanes should be peak-period only special vehicle lanes unless a separate shoulder is provided for emergency stopping.
- 3. Bus-only lane signs must be installed along the side of the motorway section subject to the restriction, at;
 - a. the start of the bus-only lane,
 - b. at the end of the restriction, and
 - c. should be installed at intervals of no more than 400m.
- 4. All signs should be installed on frangible posts.
- 5. The signs indicating the start of motorway bus-only lane should be visible to an approaching driver for a distance of at least 120m.
- 6. "Emergency Stopping Lane" signs must be installed on part time bus-only lanes to make it clear that the bus-only lane reverts to an Emergency Stopping Lane at other times.

6. Road markings

6.1 Lane lines

The lane line separating the bus-only lane from the adjacent general-traffic lane must be marked with a continuous white line as per TCDM-10 Section 12.1.3 (b).

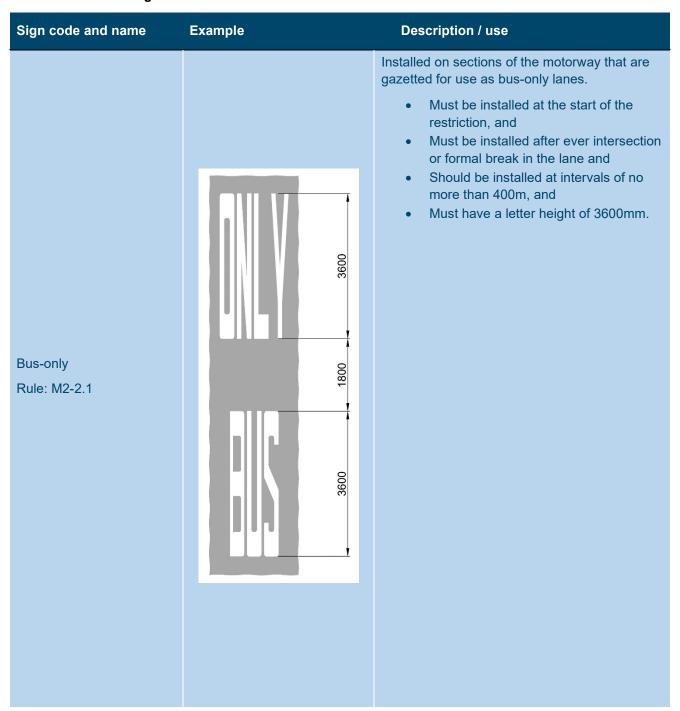
Colour: Reflectorised white,

• Width: 100 or 150mm, refer to TCDM-10 Section 12.1.3 (b) for guidance

• Stripe: Continuous

6.2 Symbols

Table 3: Road markings



Sign code and name	Example	Description / use
Ends Rule: M2-8	3600	 Should be installed in association with the Bus-only symbol at the end of the Bus-only lane. Must have a letter height of 3600mm.
'60' km/ advisory road marking. Rule: M8-1, standard numbers for road marking.	3600	 Should be positioned within each intersection for bus-only lane through running sites, approximately 60m after the "Bus-only Begins" sign, to ensure bus drivers are aware of the requirement and make it undesirable to use the bus-only lane when they can drive faster in the traffic lanes. Should be installed along with an associated 60km/h Bus Only Lane Max Speed advisory sign. Must have a numeral height of 3600mm.

Sign code and name **Description / use** Example **Bus-only** Installed on sections of the motorway that are gazetted for use as bus-only lanes. Rule: M2-2.1 Must be installed at the start of the restriction, and Must be installed after ever intersection or formal break in the lane and Should be installed at intervals of no more than 400m, and Must have a letter height of 3600mm. 1800

Sign code and name	Example	Description / use
Ends Rule: M2-8	3600	 Should be installed in association with the Bus-only symbol at the end of the Bus-only lane. Must have a letter height of 3600mm.
'60' km/ advisory road marking. Rule: M8-1, standard numbers for road marking.	3600	 Should be positioned within each intersection for bus-only lane through running sites, approximately 60m after the "Bus-only Begins" sign, to ensure bus drivers are aware of the requirement and make it undesirable to use the bus-only lane when they can drive faster in the traffic lanes. Should be installed along with an associated 60km/h Bus Only Lane Max Speed advisory sign. Must have a numeral height of 3600mm.

6.3 Coloured surfacing

As described in the Traffic Control Devices Rule, a road controlling authority may provide a surface treatment within the special vehicle lane that provides a contrasting colour or texture to that of the adjacent lanes, along the length of the lane or at discrete locations along the lane.

As per the NZTA Coloured surfacing principles design guidance note (<u>Coloured Surfacing Principles</u>) red surfacing has become associated with higher risk locations. Where used, surface colouring for motorway bus-only lanes should be red in colour and applied at bus-only lane through-running locations only, as illustrated in typical layout diagrams in section 7.

Red coloured surfacing may also be applied on motorway bus-only lanes in discrete locations where there are other site specific conditions that warrant this additional deterrent.

The colour should be AS 2700S-2011 R13 Signal Red or similar and in accordance with NZTA P33 Specification for Coloured Surfacing.

7. Typical layouts

Typical layouts for motorway Bus-only lanes are shown in the following figures.

For other special vehicle lanes, refer to TCD manual Part 5.

Figure 7.1: Bus-only lane symbols

(a) Bus-only symbol

100 mm (or 150 mm) white lane line Bus only symbol TCD Schedule 2, M2-2.1 Edge of seal, kerb face or guardrail .8m 100 mm (or 150 mm) white edgeline to be marked to the left of the bus-only lane where the overall width of the bus-only lane / shoulder is 3.5m or more 3.6m R4-12.2 Emergency stopping lane (combination) General R4-7.2 or R4-7.3 traffic lane 3.0 m Bus only

(b) Bus-only Ends symbols

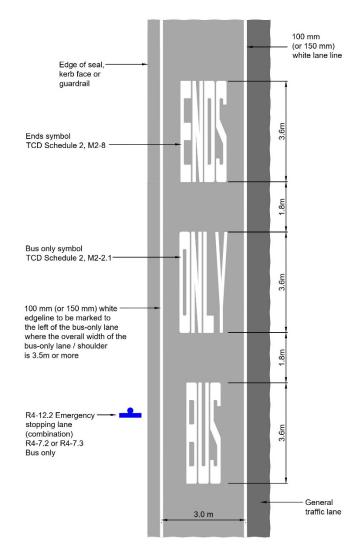


Figure 7.2: Bus-only lane on-ramp

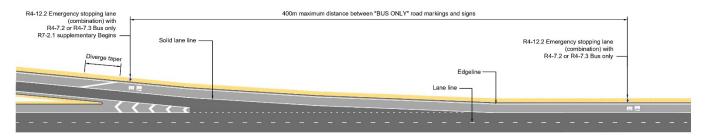


Figure 7.3: Bus-only lane off-ramp

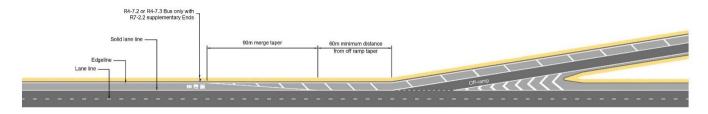


Figure 7.4: Bus-only through running standard off-ramp

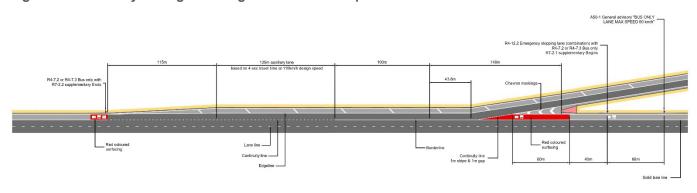


Figure 7.5: Bus-only through running lane drop off-ramp

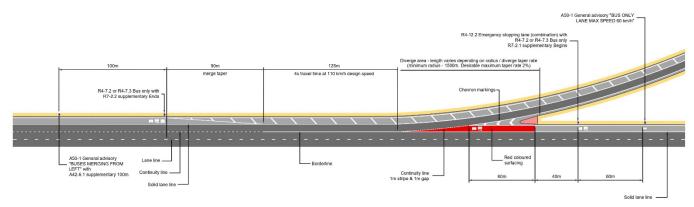


Figure 7.6: Bus-only through running on-ramp

