

SECTION 11

MISCELLANEOUS SIGNS

June 2009

MISCELLANEOUS SIGNS

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11. MISCELLANEOUS SIGNS

11.1 GENERAL

This section specifies the traffic control devices to be used to sign particular situations or conditions on a motorway or expressway and gives guidance of their use. The situation and conditions covered are:

- (a) Lane ends
- (b) Slow lanes
- (c) Welcome to
- (d) Merging traffic
- (e) Lane gains
- (f) Exit advisory speed
- (g) Ramp signals
- (h) Bus lanes
- (i) Busway
- (j) Toll roads
- (k) Tilting truck

Each of the signs covered under miscellaneous signs are required to provide clear advice to users or would be users of the motorway or expressway.

11.2 LANE ENDS

Wherever practicable a reduction in the number of motorway lanes should be so arranged that it occurs on the left side of the carriageway, so that traffic in the terminating lane must merge into the lane on its right.

The MI - 29 'LANE ENDS' sign is to be used on sections of the motorway where a sign gantry or overhead structure is available to accommodate the sign. On sections of motorway where a sign gantry is not available a PW - 43.2 sign combination is to be used.

The 'LANE ENDS' sign should generally be erected 200 m in advance of commencement of the merge taper. If this is impractical it shall be located at the commencement of the merge taper and the distance shall not be included on the sign.

The location will depend on the position of the sign gantry or overhead structure. Where the distance is greater than 200 m prior to the commencement of the merge taper it should be rounded to the nearest whole 50 m.

FIGURE 11.1 shows the general layout of the sign.

A PW - 43 Road Narrows sign shall be used in conjunction with the 'lane ends' sign.

11.3 SLOW LANES

The layout of motorway climbing lanes should be such that only slow vehicles are encouraged to use the left lane. As far as practicable climbing lanes should be started and finished clear of entrance or exit ramps.

Where a lane is provided on the motorway for slow vehicles it shall be signed using 'slow vehicle lane 1km ahead', 'slow speed lane ahead' and 'slow vehicles use left lane' signs. These signs shall be erected on the left hand side of the carriageway. The signs shall be erected such that:

- The 'slow vehicle lane 1km ahead' is 1 km prior to the commencement of the diverge taper;
- The 'slow speed lane ahead' sign is 300 m prior to the commencement of the diverge taper; and

- The 'slow vehicles use left lane' sign is at the commencement of the diverge taper.

Prior to the end of the slow lane a 'lane ends' sign shall be installed in accordance with the requirements of Section 11.2. FIGURES 11.2, 11.3 and 11.4 show the general layout of the signs.

11.4 WELCOME TO

'Welcome to ...' signs may be erected on a motorway when:

- A regional council or territorial local authority wants to identify entry to a tourist region, or
- A territorial authority wants to identify entry to a significant town or city.

The provisions of the Manual of Traffic Signs and Markings, Part I: *Traffic Signs*, Section 9.6.2(b)(i) shall apply. The sign shall be increased in size by 100%.

11.5 MERGING TRAFFIC

At locations where there is a 2% to 3% motorway merge the PW - 4 sign is inappropriate and should be replaced by the PW 2 - 6.3 'Intersection Merging Traffic Left and Right' sign detailed in the TCD Manual, *Traffic Signs Specifications*.

The sign should be erected in advance of the point where the motorway to motorway connection merges. It should be erected on both the motorway and motorway on ramp so as not to obstruct drivers' views of the merging traffic and be between 15 and 30 m in advance of the intersection of the shoulder edges of the converging roadways.

11.6 LANE GAINS

At motorway on ramps where there is lane gain, that is traffic entering onto the motorway does not have to merge with through traffic, then the PW - 4 sign is inappropriate and should be replaced by a PW 6 - 3 'lane management lane gains' sign. Details of the lane gains sign are given in the TCD Manual, *Traffic Signs Specifications*.

The sign should be erected in advance of the point where the motorway to motorway shoulder edges intersect. It should be erected such that both the motorway and the motorway on ramp traffic have visibility to the sign otherwise two signs may be required. The sign should not obstruct drivers' views of the adjacent traffic and be between 15 m and 30 m in advance of the intersection of the shoulder edges of the two carriageways.

11.7 EXIT ADVISORY SPEED

An exit advisory speed sign complying with PW 3 - 10 'horizontal alignment exit speed' must be erected where there is a substandard off ramp curve beyond a motorway exit and the distance between the exit nose and the curve is less than that given in the MOTSAM, Part I: *Traffic Signs*, Appendix A3, Table A3.2. Details of the 'horizontal alignment exit speed' sign are given in the TCD Manual, *Traffic Signs Specifications*.

Both the advisory speed on the sign and the location of the sign should be assessed and determined in accordance with the provisions of the MOTSAM, Part I: *Traffic Signs*, Appendix A3. The requirements of Section 1.4 should be noted, that is ground mounted signs shall be clearly visible

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to drivers from a distance of:

- 60 m in urban operating speed areas; and
- 180 m in rural motorway operating speed areas.

11.8 RAMP SIGNALS

Where ramp signals are installed motorway on-ramps a number of VMS and static signs are required on the approach roads and the on-ramps. These signs include:

- (a) VMS Sign D located on the left and/or right side(s) of approach roads to the motorway on-ramps at a suitable distance in advance of the required turn onto the motorway on-ramp.
- (b) VMS Sign B located 60 m down the on-ramp when the line of sight to the ramp signals is poor. A PW – 3 ‘traffic signals’ sign is to be erected above Sign B on the same pole.
- (c) VMS Sign A is positioned to be visible to drivers immediately prior to committing themselves to the turn onto the motorway on-ramp.
- (d) When the on-ramp ‘emergency lane’ has been gazetted for use during the operation of the ramp signals as a ‘transit lane’ and/or ‘truck lane’ then the applicable signage shall be installed.
- (e) ‘One vehicle per green’ and ‘each lane’ signs shall be erected on each ramp signal pole directly beneath the signal aspects. The ‘One vehicle per green’ sign shall be positioned above the ‘each lane’ sign.
- (f) A sign advising drivers in the ‘transit lane’ and/or ‘truck lane’ to ‘do not stop for signals’ or that the ramp ‘signals do not apply’ shall be erected. The former relates to a ground mounted sign 10 m in advance of the of ramp signals when they are ground mounted and the latter to an overhead mounted sign on the same gantry as the ramp signals when they are mounted overhead.
- (g) An ‘ends’ sign is to be located down the on-ramp where the ‘transit lane’ and/or ‘truck lane’ finishes. It shall be installed directly beneath and on the same pole as the ‘transit lane’ or ‘truck lane’ sign.

‘Transit lane’ and/or ‘truck lane’ signs are shown in FIGURE 11.5. Signs A, B, C, D, E and F are ground mounted, while sign G is overhead mounted.

Ramp signals require a significant amount of signage in addition to the signage normally present on motorway on-ramps. Careful consideration is necessary to the positioning of all the signs to ensure that the minimum longitudinal separation requirement between signs is not compromised.

11.9 BUS LANES

Where the emergency shoulder of a motorway has been gazetted for utilisation as a bus lane it must be signed as such together with the hours of operation.

Details of the signs described below are given in the TCD Manual, *Traffic Signs Specifications*, R 4 - 6 Lane Use Bus Lane, R 7 - 1 ‘ahead’, R 7 - 2 ‘begins’ and R 7 - 3 ‘ends’. The actual gazetted signs are shown in Schedules A, B, C, D, H and J in FIGURE 11.6.

The bus lane sign should be erected on the left hand side of the motorway in combination with the following supplementary signs such that:

- (h) The R 7 - 1 ‘ahead’ is at least 100 m prior to the commencement of the bus lane.

- (i) The R 7 - 2 ‘begins’ and hours of operation supplementary sign are at the commencement of the bus lane.
- (j) The hours of operation supplementary sign is repeated at maximum intervals of 400 m along the full length of the bus lane.
- (k) The R 7 - 3 ‘ends’ sign is erected at the end of the bus lane.

The section of shoulder used as bus lane shall be ‘red chip sealed’ and have appropriate road markings.

11.10 BUSWAYS

A busway is a purpose built road dedicated to bus passenger transport such as the Northern Busway that runs alongside SH1 (Northern Motorway) from Constellation Drive to the Auckland Harbour Bridge. Express services and local bus services link into the busway via stations.

Guide signage is required and shall be in accordance with MOTSAM, Part 1: *Traffic Signs*.

An advance direction sign (AD - 5) on a local road leading to a busway station is given in FIGURE 11.6.

11.11 TOLL ROADS

There is an array of miscellaneous signage associated with toll roads, in particular advance notification of the toll road and where to pay the toll and the toll tariff. In particular, with electronic toll collection signage is required to advise drivers on the following:

- (a) ‘No toll booths’ and ‘toll point, cameras operating’, refer to FIGURES 11.11 and 11.13.
- (b) ‘Pay at ...’, refer to FIGURE 11.12.
- (c) ‘Non-payment is an offence’, refer to FIGURE 11.14.
- (d) ‘Toll tariff’ so that if desired drivers can exit the motorway prior to the tolled section and use the alternative free route. Refer to FIGURE 11.10.
- (e) ‘Terms and conditions’ of use of the toll road, refer to FIGURE 11.15.

Provision may also be made for cash payment but this will be at facilities off the State highway in advance of the toll road. Direction to these facilities is through the use of ‘cash payment’ signs, refer to FIGURE 11.16.

Advance notification of a toll road can be given using either of the sign formats in FIGURES 11.8 and 11.9. FIGURE 11.8 shows the traffic instruction ‘USE THIS EXIT’ to access the ‘Free Route’. The preferred default for this traffic instruction is ‘USE “Interchange Name” EXIT’ e.g. ‘USE SILVERDALE EXIT’.

11.12 TILTING TRUCK

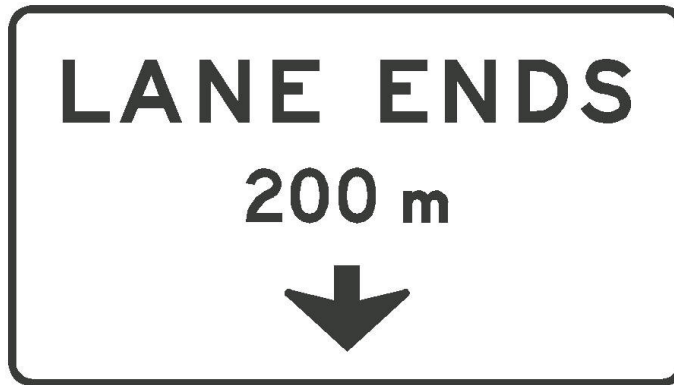
The PW 3 - 9 Permanent Warning ‘Horizontal Alignment Truck Advisory Speed’ sign should be erected on the approaches to horizontal curves when warranted by an appropriate advisory speed assessment survey. It will apply where there is a curve or series of curves with high crossfall that the advisory speed assessment survey determines may be unsafe for trucks travelling at a speed below the posted speed limit.

The sign should be positioned in advance of the first curve at a distance calculated in accordance with the MOTSAM, Part I: *Traffic Signs, Appendix A3*.

Details of the sign are given in the TCD Manual, *Traffic Signs Specifications*.

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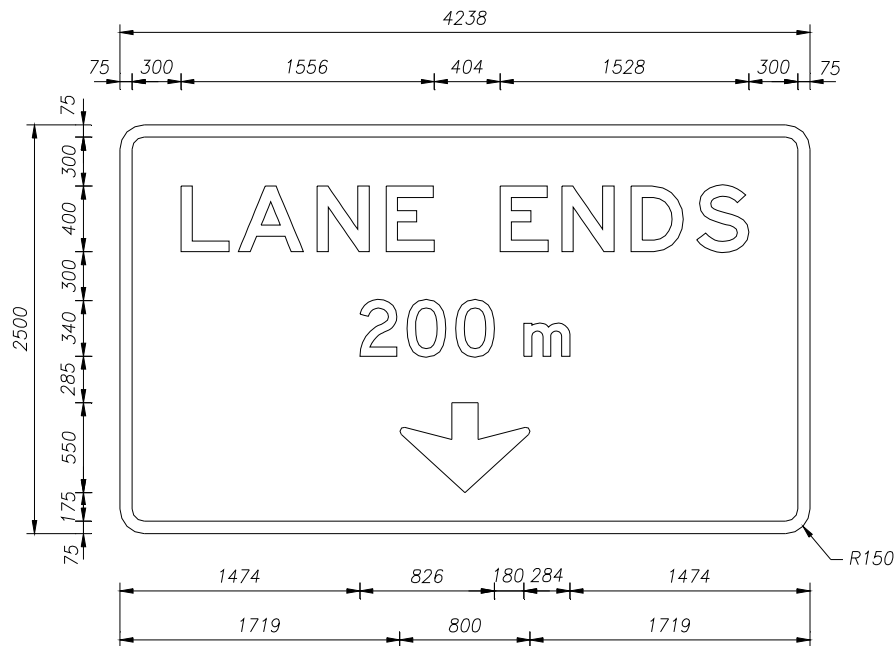
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MI - 29

SIGN DETAILS

LEGEND:	Black
BACKGROUND:	Reflectorised white
BORDER:	Black
LETTERS:	
'Lane ends'	Series E 400 capitals
'm'	Modified Series E 200 loop height
NUMERALS:	
'200'	Series D 340
ARROW:	Type M4 (refer FIGURE 1.7)



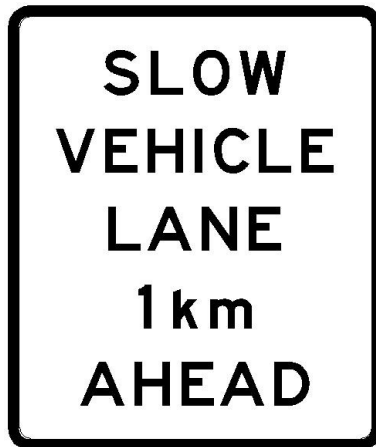
NOTE: Overhead mounted sign.

MI - 29 LANE ENDS 200m SIGN

FIGURE 11.1

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MI - 51

SIGN DETAILS

LEGEND:	Black
BACKGROUND:	Reflectorised white
BORDER:	Black
LETTERS:	
'Text'	Series E 300
'km'	Modified Series E 150 loop height
Numerals	
'1', '2' or '5'	Modified Series E 300

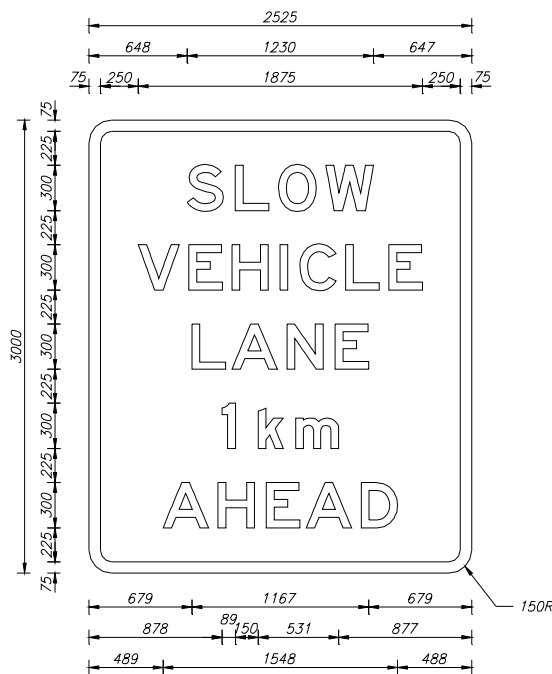


FIGURE 11.2 MI - 51 SLOW VEHICLE LANE 1 km AHEAD SIGN

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NOTE Ground mounted sign.

MISCELLANEOUS SIGNS

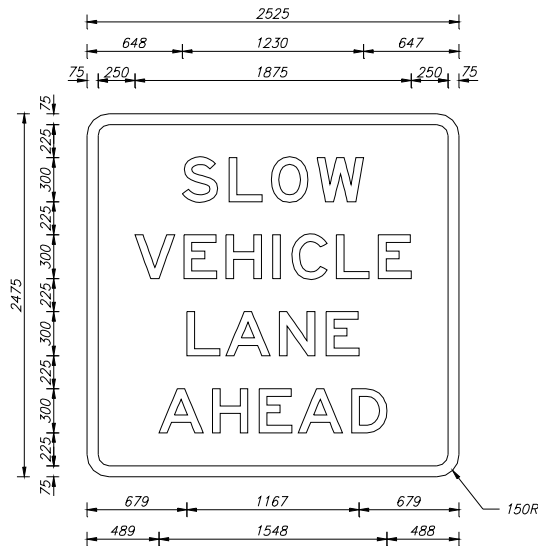
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MI - 52

SIGN DETAILS

LEGEND:	Black
BACKGROUND:	Reflectorised white
BORDER:	Black
LETTERS:	Series E 300



NOTE: Ground mounted sign.

FIGURE 11.2 MI - 51 SLOW VEHICLE LANE 1 km AHEAD SIGN

MISCELLANEOUS SIGNS

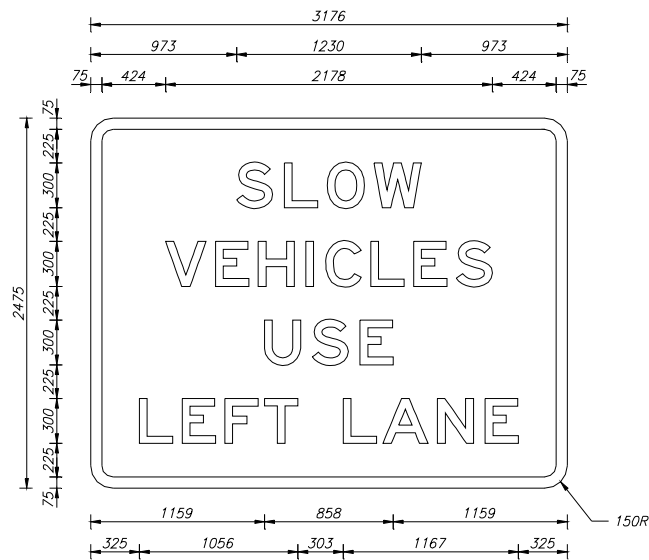
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MI - 53

SIGN DETAILS

LEGEND:	Black
BACKGROUND:	Reflectorised white
BORDER:	Black
LETTERS:	Series E 300



NOTE: Ground mounted sign.

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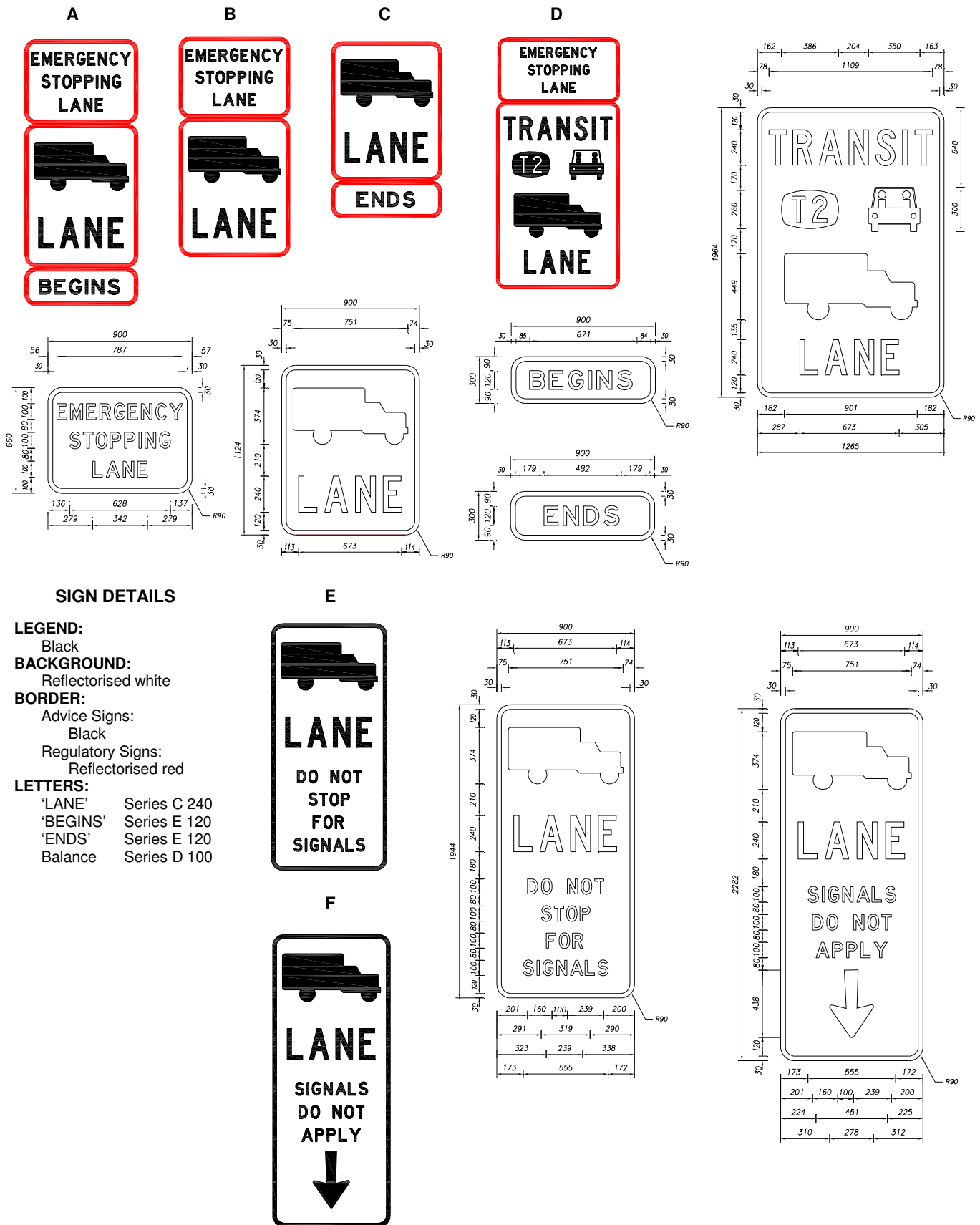
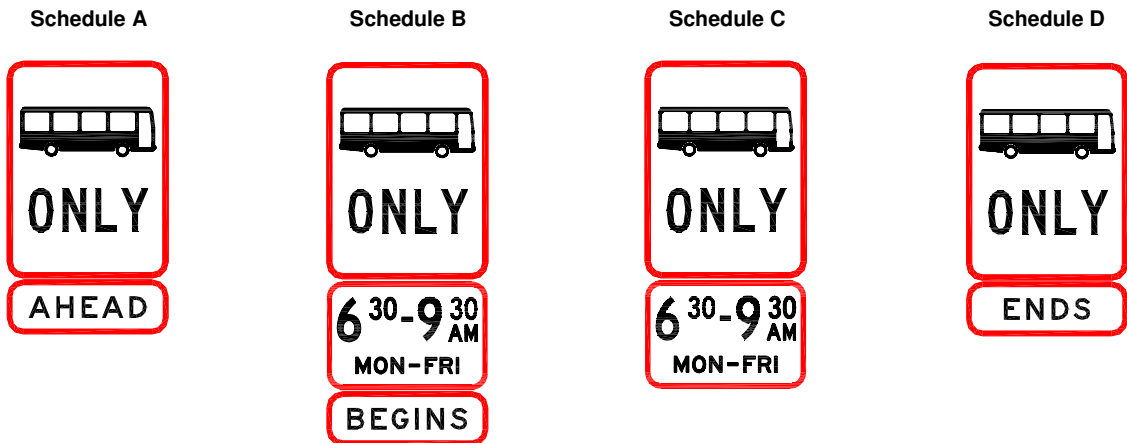


FIGURE 11.4 MI - 53 SLOW VEHICLES USE LEFT LANE SIGN

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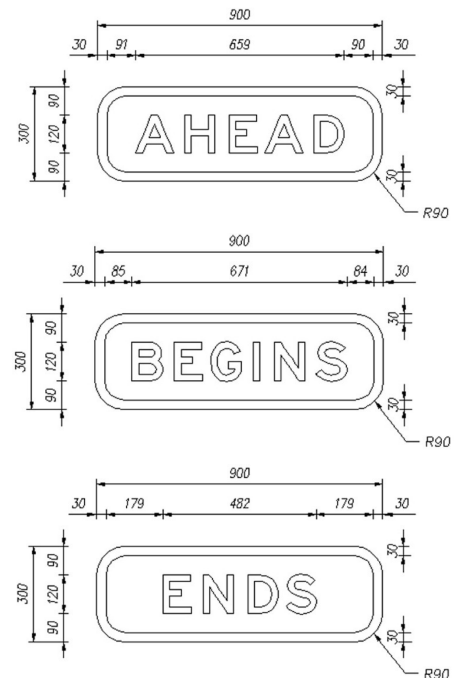
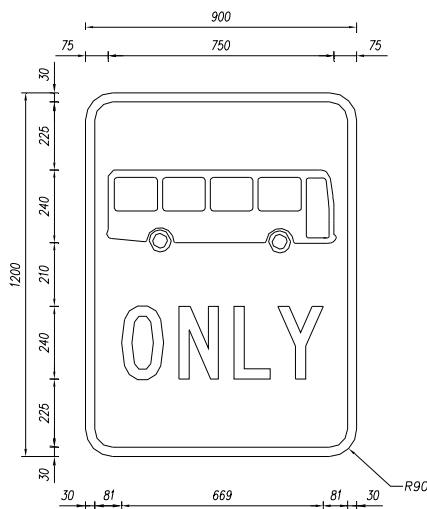
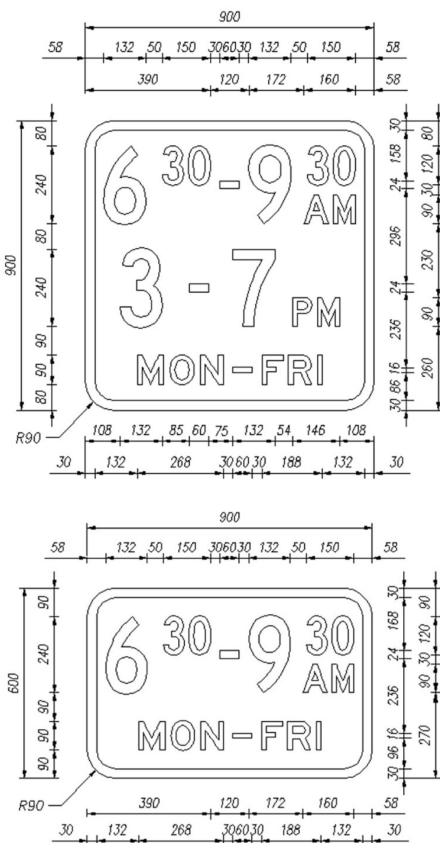
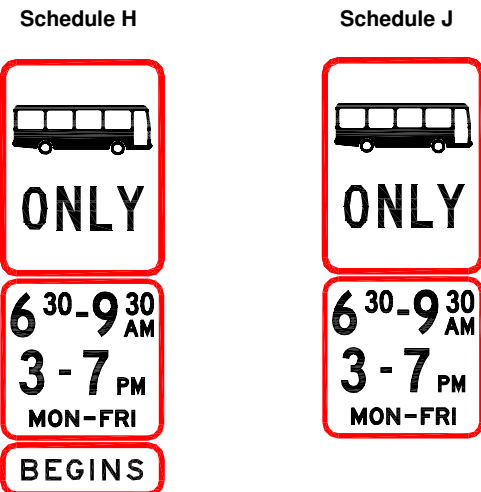
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SIGN DETAILS

- LEGEND:** Black
- BACKGROUND:** Reflectorised white
- BORDER:** Reflectorised red
- LETTERS:** 'LANE', 'AHEAD', 'BEGINS', 'ENDS', 'MON-FRI', 'AM', '6' and '9', '30'
- NUMERALS:** '6' and '9', '30'
- SYMBOL:** Bus (refer to TCD Manual)

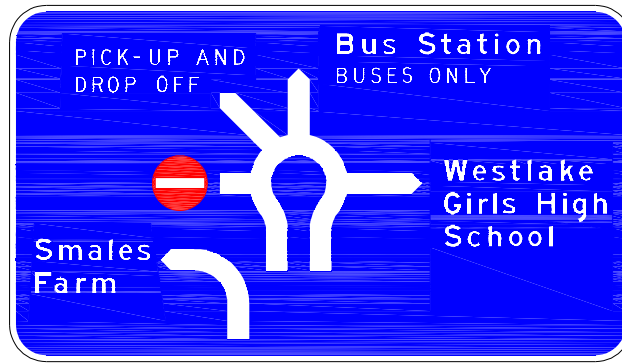
- Series C 240
- Series E 120
- Series E 90
- Series D 90
- Series C 240
- Series C 120



NOTE: Ground mounted signs

MISCELLANEOUS SIGNS

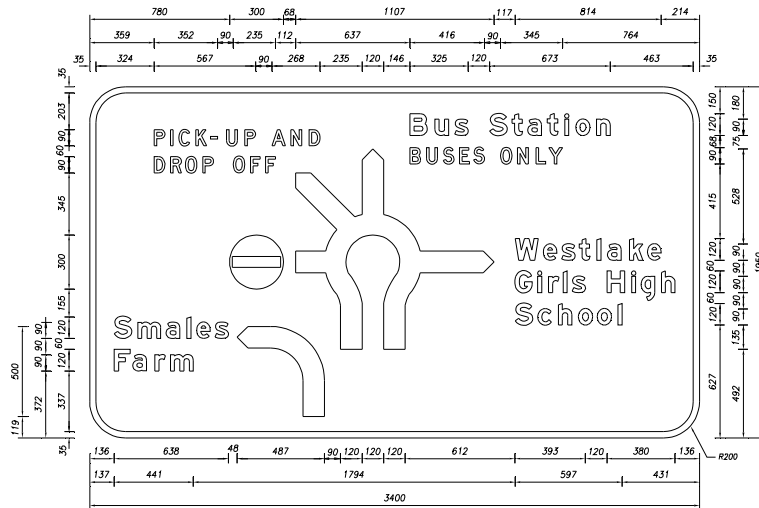
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AD - 5

SIGN DETAILS

LEGEND:	Reflectorised white
BACKGROUND:	Reflectorised blue
BORDER:	Reflectorised white
LETTERS:	
Destinations:	
Initial capitals	Modified Series E 120
Lower case	Modified Series E 90 loop height
Instructions:	Series D 90
NUMERALS:	Modified Series E 300
ROUTE MARKER:	Motorway/Expressway type (refer to FIGURE 1.3)



NOTE: Ground mounted sign.

FIGURE 11.6

AD - 5 BUSWAY SIGN

MISCELLANEOUS SIGNS

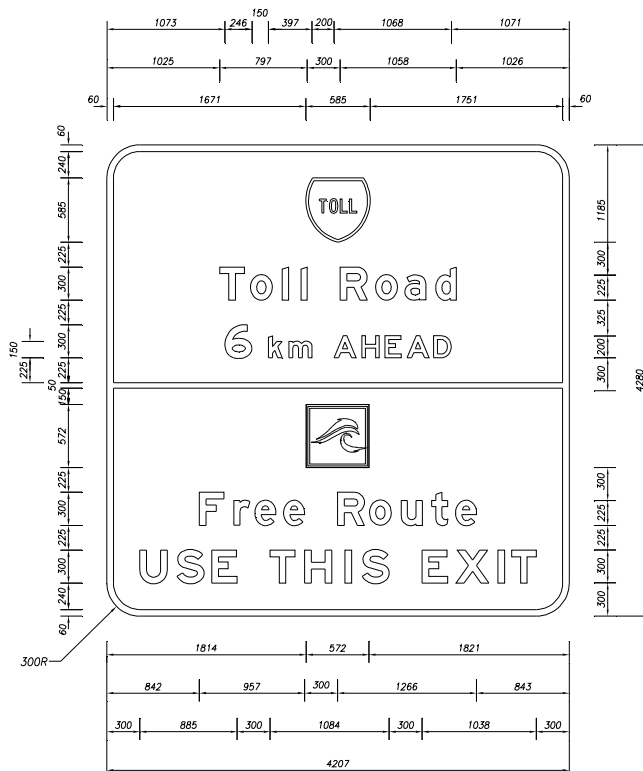
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TI - 1.1

SIGN DETAILS

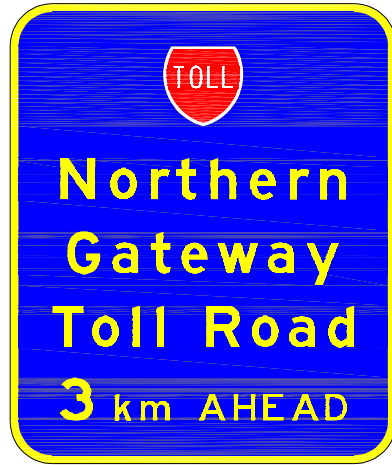
LEGEND:	Reflectorised yellow
BACKGROUND:	Reflectorised blue
BORDER:	Reflectorised yellow
LETTERS:	
Initial capitals	Modified Series E 300
Lower case	Modified Series E 225 loop height
NUMERALS:	Modified Series E 300
ROUTE MARKER:	Motorway/Expressway type (refer to FIGURE 1.3)



NOTE: Ground mounted sign.

MISCELLANEOUS SIGNS

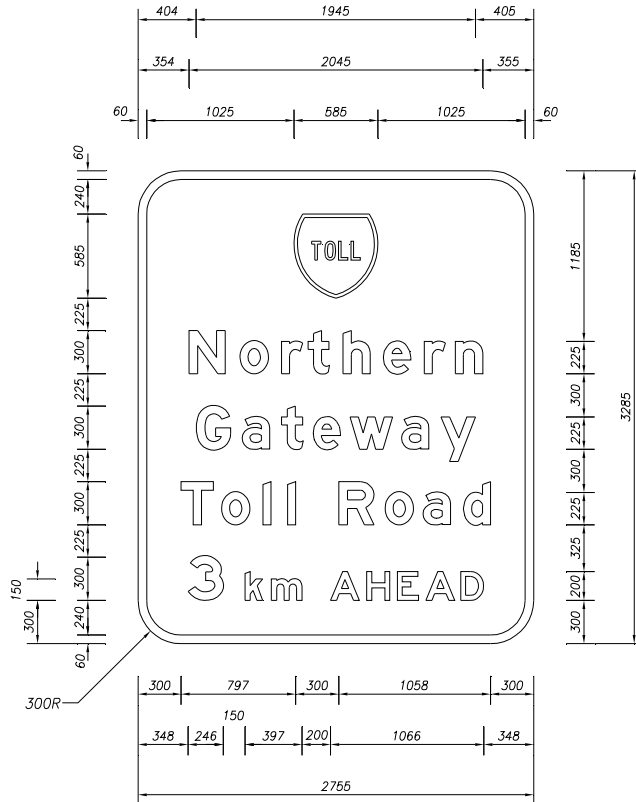
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TI - 1.2

SIGN DETAILS

LEGEND:	Reflectorised yellow
BACKGROUND:	Reflectorised blue
BORDER:	Reflectorised yellow
LETTERS:	
Initial capitals	Modified Series E 300
Lower case	Modified Series E 225 loop height
NUMERALS:	Modified Series E 300
ROUTE MARKER:	Motorway/Expressway type (refer to FIGURE 1.3)



NOTE: Ground mounted sign.

FIGURE 11.8

GI - T2 TOLL PAYMENT OPTIONS SIGN

MISCELLANEOUS SIGNS

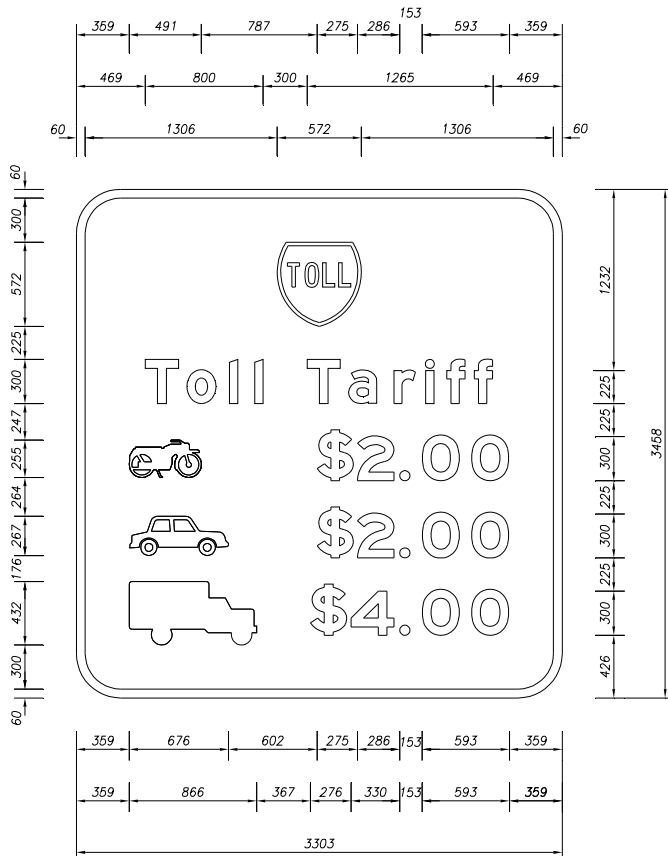
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TI - 2

SIGN DETAILS

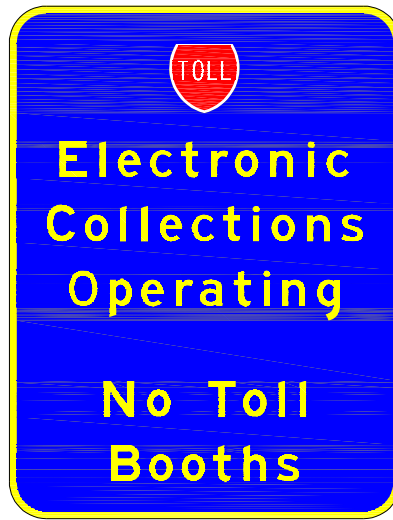
LEGEND:	Reflectorised yellow
BACKGROUND:	Reflectorised blue
BORDER:	Reflectorised yellow
LETTERS:	
Initial capitals	Modified Series E 300
Lower case	Modified Series E 225 loop height
NUMERALS:	
Dollar symbol	Modified Series E 300
Numbers	Modified Series E 300
ROUTE MARKER:	Motorway/Expressway type (refer to FIGURE 1.3)



NOTE: Ground mounted sign.

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TI - 3

SIGN DETAILS

LEGEND:	Reflectorised yellow
BACKGROUND:	Reflectorised blue
BORDER:	Reflectorised yellow
LETTERS:	Modified Series E 300
Initial capitals	Modified Series E 225 loop height
Lower case	Motorway/Expressway type (refer to FIGURE 1.3)
ROUTE MARKER:	



NOTE: Ground mounted sign.

MISCELLANEOUS SIGNS

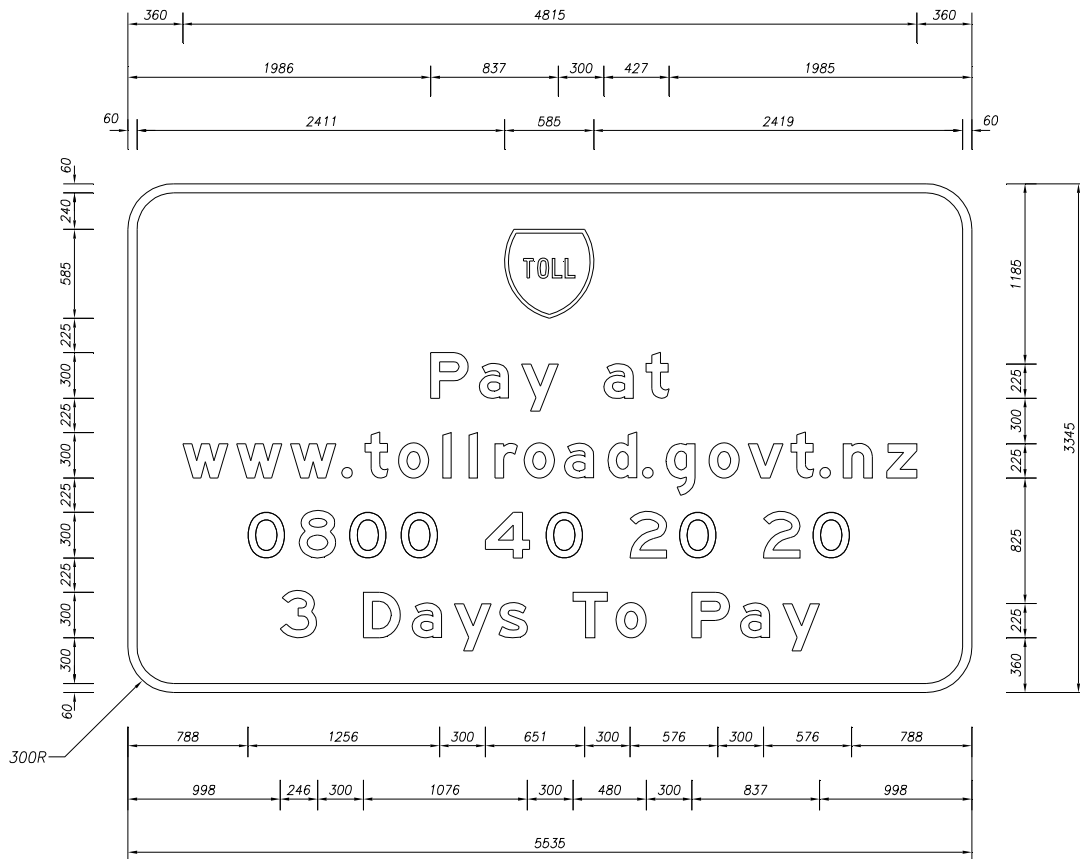
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TI - 4

SIGN DETAILS

LEGEND:	Reflectorised yellow
BACKGROUND:	Reflectorised blue
BORDER:	Reflectorised yellow
LETTERS:	
Initial capitals	Modified Series E 300
Lower case	Modified Series E 225 loop height
NUMERALS:	Modified Series E 300
ROUTE MARKER:	Motorway/Expressway type (refer to FIGURE 1.3)



TI - 3 ELECTRONIC COLLECTIONS OPERATING SIGN FIGURE 11.11

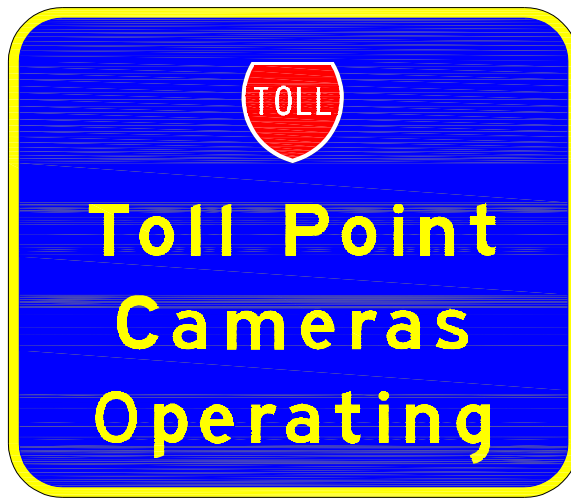
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NOTE: Ground mounted sign.

MISCELLANEOUS SIGNS

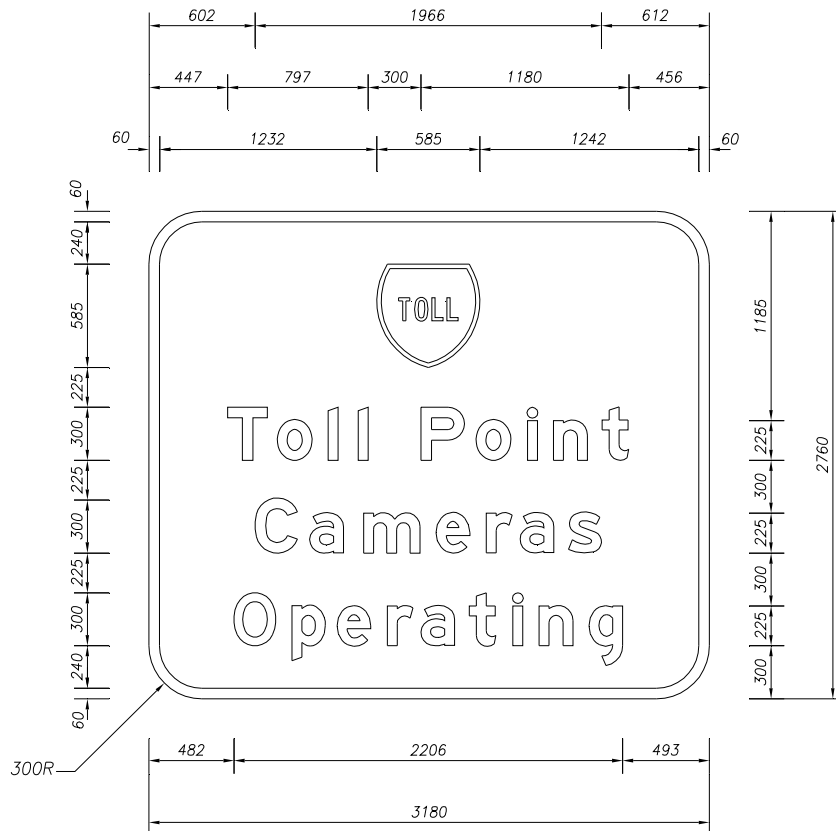
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TI - 5

SIGN DETAILS

LEGEND:	Reflectorised yellow
BACKGROUND:	Reflectorised blue
BORDER:	Reflectorised yellow
LETTERS:	Modified Series E 300
Initial capitals	Modified Series E 225 loop height
Lower case	Motorway/Expressway type (refer to FIGURE 1.3)
ROUTE MARKER:	



NOTE: Ground mounted sign.

TI - 5 TOLL POINT CAMERAS OPERATING SIGN

FIGURE 11.13

MISCELLANEOUS SIGNS

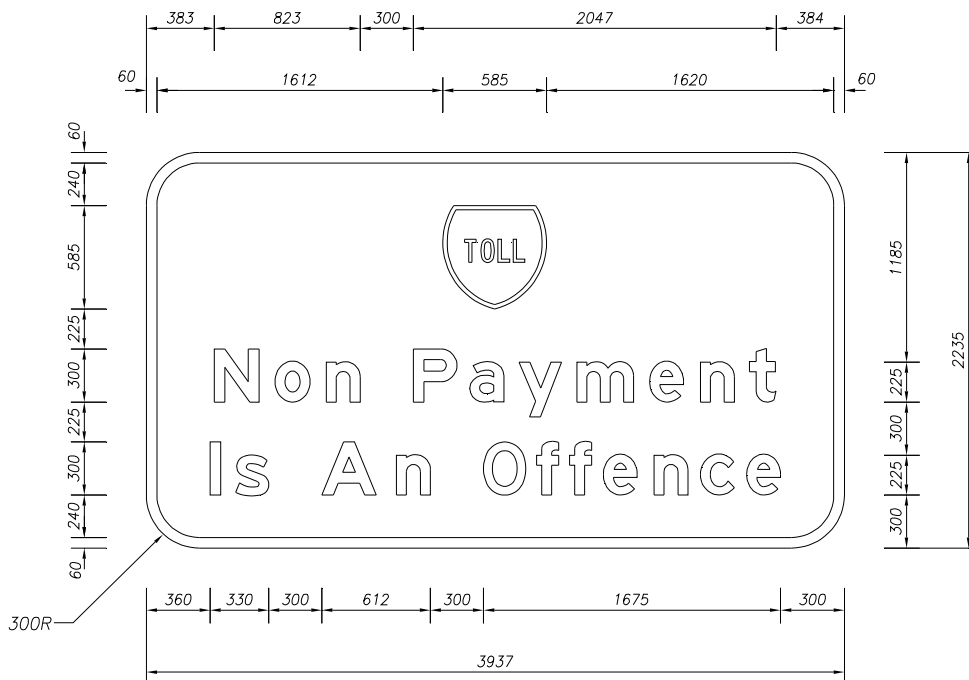
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TI - 6

SIGN DETAILS

LEGEND:	Reflectorised yellow
BACKGROUND:	Reflectorised blue
BORDER:	Reflectorised yellow
LETTERS:	
Initial capitals	Modified Series E 300
Lower case	Modified Series E 225 loop height
ROUTE MARKER:	Motorway/Expressway type (refer to FIGURE 1.3)

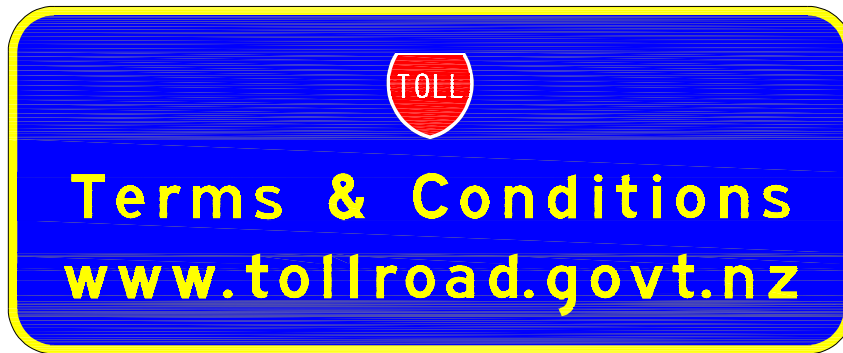


NOTE: Ground mounted sign.

FIGURE 11.14 TI - 6 NON PAYMENT IS AN OFFENCE SIGN

MISCELLANEOUS SIGNS

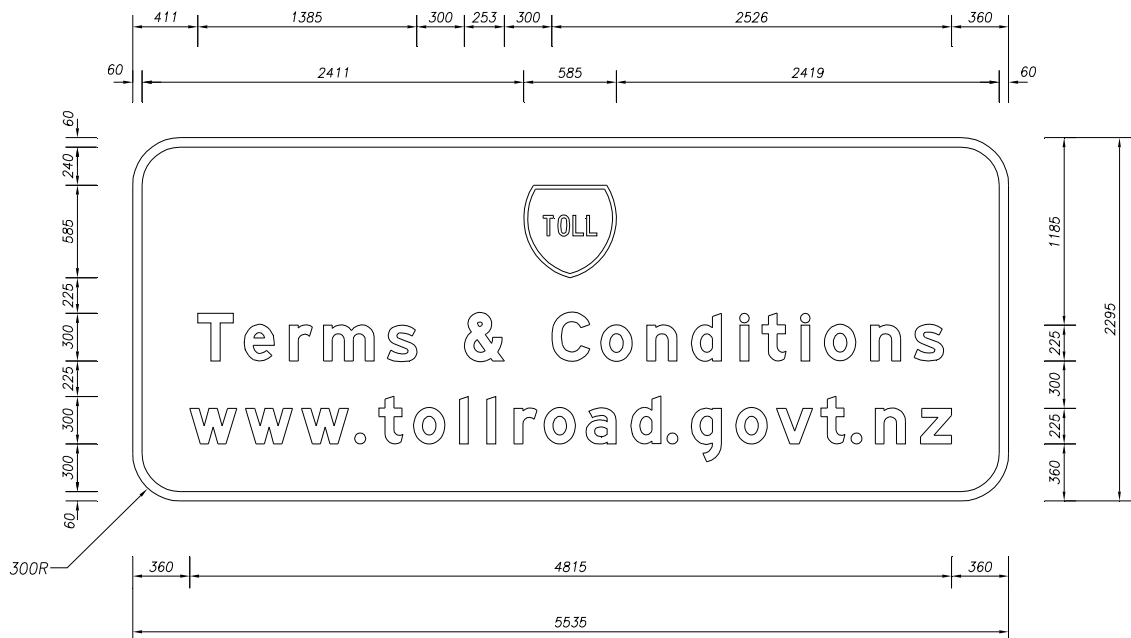
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TI - 7

SIGN DETAILS

LEGEND:	Reflectorised yellow
BACKGROUND:	Reflectorised blue
BORDER:	Reflectorised yellow
LETTERS:	
Initial capitals	Modified Series E 300
Lower case	Modified Series E 225 loop height
ROUTE MARKER:	Motorway/Expressway type (refer to FIGURE 1.3)



NOTE: Ground mounted sign.

MISCELLANEOUS SIGNS

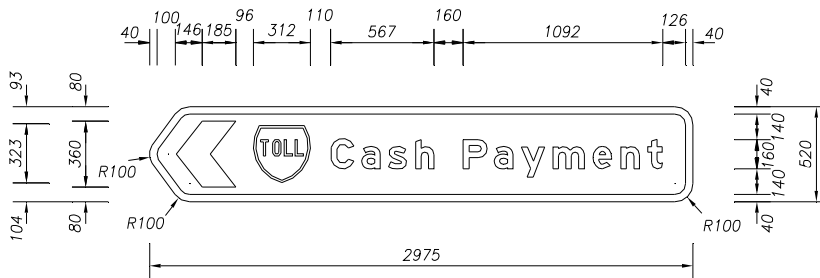
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TI - 8

SIGN DETAILS

LEGEND:	Reflectorised yellow
BACKGROUND:	Reflectorised blue
BORDER:	Reflectorised yellow
LETTERS:	Modified Series E 160
Initial capitals	Modified Series E 120 loop height
Lower case	Motorway/Expressway type (refer to FIGURE 1.3)
ROUTE MARKER:	



NOTE: Ground mounted sign.

FIGURE 11.16 TI - 8 TOLL CASH PAYMENT DIRECTION SIGN