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**Specification (Measurement)**

**Transport and Main Roads Specifications  
MRS45 Road Surface Delineation**

**October 2016**

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## 1 Introduction

This Specification applies to the supply and installation of pavement markings, raised pavement markers and audio tactile line marking (ATLM).

This Specification shall be read in conjunction with MRS01 *Introduction to Specifications* and other Specifications as appropriate.

This Specification forms part of the Transport and Main Roads Specifications Manual.

## 2 Measurement of work

### 2.1 Standard Work Items

In accordance with the provisions of Clause 2 of MRS01 *Introduction to Specifications*, the Standard Work Items incorporated in this Specification are listed below in Table 2.1.

**Table 2.1 – Standard Work Items**

Standard Item No.	Description	Unit of Measurement
<b>Line Marking</b>		
6301	Spotting only for longitudinal lines	m
6311	Dividing line, broken 100 mm wide, [ <i>line length</i> ] mm line length, [ <i>gap length</i> ] mm gap length, colour [ <i>colour</i> ], material [ <i>material</i> ]	m
6312	Dividing line, continuous 100 mm wide, [ <i>line length</i> ] mm line length, [ <i>gap length</i> ] mm gap length, colour [ <i>colour</i> ], material [ <i>material</i> ]	m
6313	Barrier line, single, 100 mm wide	m
6314	Barrier line, one direction, 80 mm wide each line, 80 mm lateral gap between lines, 3000 mm line length and 9000 mm gap length on broken side, colour [ <i>colour</i> ], material [ <i>material</i> ]	m
6315	Barrier line, both directions, 80 mm wide each line, 80 mm lateral gap between lines, colour [ <i>colour</i> ], material [ <i>material</i> ]	m
6316	Lane line, broken, 100 mm wide, [ <i>line length</i> ] mm line length, [ <i>gap length</i> ] mm gap length, colour [ <i>colour</i> ], material [ <i>material</i> ]	m
6317	Freeway lane line, broken, 150 mm wide, [ <i>line length</i> ] mm line length, [ <i>gap length</i> ] mm gap length, colour [ <i>colour</i> ], material [ <i>material</i> ]	m
6318	Lane line, continuous, 100 mm wide, colour [ <i>colour</i> ], material [ <i>material</i> ]	m
6319	Edge line, 150 mm wide, colour [ <i>colour</i> ], material [ <i>material</i> ]	m
6321	Continuity line, 200 mm wide, colour [ <i>colour</i> ], material [ <i>material</i> ]	m
6322	Turn line, 100 mm wide, colour [ <i>colour</i> ], material [ <i>material</i> ]	m

Standard Item No.	Description	Unit of Measurement
6323	Outline, 150 mm wide, colour [colour], material [material]	m
6324	Audio tactile line marking – Edge line, 150 mm wide, 50 mm rib length, 250 mm gap length, 8 mm rib height, [with 1.5 m gap every 20 m for cyclists   with no gaps for cyclists]	m
6325	Audio tactile line marking – Double barrier line, consisting of two barrier lines each 80 mm wide, 50 mm rib length, 250 mm gap length, 8 mm rib height (applied to both lines)	m
6331	Transverse lines (stop lines, holding lines, markings at Stop and Give Way signs, pedestrian crosswalk lines, arrows, shapes, symbols and numerals), colour [colour], material [material]	m <sup>2</sup>
6332	Transverse lines (diagonal and chevron markings, parking areas and kerb markings), colour [colour], material [material]	m <sup>2</sup>
6341	Removal of existing longitudinal line, [width] mm wide, by [method of removal]	m
6342	Removal of existing transverse lines or shapes, by [method of removal]	m <sup>2</sup>
<b>Raised Pavement Markers</b>		
6351	Retroreflective raised pavement markers	each
6352	Non-retroreflective raised pavement markers	each
6353	Temporary raised pavement markers	each
6354	Pavement bars	each
6355	Removal of existing raised pavement markers, by [method of removal]	each

## 2.2 Work Operations

### Item 6301 Spotting only for longitudinal lines

Work Operations incorporated in the above item include:

- Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- supply of all materials
- setting out for line spotting
- provision of traffic management, and
- installation of line spotting.

Item 6311	Dividing line, broken 100 mm wide, [ <i>line length</i> ] mm line length, [ <i>gap length</i> ] mm gap length, colour [ <i>colour</i> ], material [ <i>material</i> ]
Item 6312	Dividing line, continuous 100 mm wide, [ <i>line length</i> ] mm line length, [ <i>gap length</i> ] mm gap length, colour [ <i>colour</i> ], material [ <i>material</i> ]
Item 6313	Barrier line, single, 100 mm wide
Item 6314	Barrier line, one direction, 80 mm wide each line, 80 mm lateral gap between lines, 3000 mm line length and 9000 mm gap length on broken side, colour [ <i>colour</i> ], material [ <i>material</i> ]
Item 6315	Barrier line, both directions, 80 mm wide each line, 80 mm lateral gap between lines, colour [ <i>colour</i> ], material [ <i>material</i> ]
Item 6316	Lane line, broken, 100 mm wide, [ <i>line length</i> ] mm line length, [ <i>gap length</i> ] mm gap length, colour [ <i>colour</i> ], material [ <i>material</i> ]
Item 6317	Freeway lane line, broken, 150 mm wide, [ <i>line length</i> ] mm line length, [ <i>gap length</i> ] mm gap length, colour [ <i>colour</i> ], material [ <i>material</i> ]
Item 6318	Lane line, continuous, 100 mm wide, colour [ <i>colour</i> ], material [ <i>material</i> ]
Item 6319	Edge line, 150 mm wide, colour [ <i>colour</i> ], material [ <i>material</i> ]
Item 6321	Continuity line, 200 mm wide, colour [ <i>colour</i> ], material [ <i>material</i> ]
Item 6322	Turn line, 100 mm wide, colour [ <i>colour</i> ], material [ <i>material</i> ]
Item 6323	Outline, 150 mm wide, colour [ <i>colour</i> ], material [ <i>material</i> ]

Work Operations incorporated in the above items include:

- Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- supply of all materials
- setting out for line gap configuration
- provision of traffic management
- installation of pavement markings, and
- installation of reflective glass beads.

Item 6324	Audio tactile line marking – Edge line, 150 mm wide, 50 mm rib length, 250 mm gap length, 8 mm rib height, [ <i>with 1.50 m gap every 20 m for cyclists / with no gaps for cyclists</i> ]
Item 6325	Audio tactile line marking – Double barrier line, consisting of two barrier lines each 80 mm wide, 50 mm rib length, 250 mm gap length, 8 mm rib height (applied to both lines)

Work Operations incorporated in the above items include:

- Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- supply of all materials
- provision of traffic management, and

- d) installation of audio tactile profile.

**Item 6331**      **Transverse lines (stop lines, holding lines, markings at Stop and Give Way signs, pedestrian crosswalk lines, arrows, shapes, symbols and numerals), colour [colour], material [material]**

**Item 6332**      **Transverse lines (diagonal and chevron markings, parking areas and kerb markings), colour [colour], material [material]**

Work Operations incorporated in the above items include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) supply of all materials
- c) setting out for pavement markings
- d) provision of traffic management
- e) spotting of all markings
- f) installation of pavement markings, and
- g) Installation of reflective glass beads.

**Item 6341**      **Removal of existing longitudinal line, [width] mm wide, by [method of removal]**

**Item 6342**      **Removal of existing transverse lines or shapes, by [method of removal]**

Work Operations incorporated in the above items include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) provision of traffic management, and
- c) all work necessary to remove or hide the existing pavement markings by the method stated.

**Item 6351**      **Retroreflective raised pavement markers**

**Item 6352**      **Non-retroreflective raised pavement markers**

**Item 6353**      **Temporary raised pavement markers**

**Item 6354**      **Pavement bars**

Work Operations incorporated in the above items include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) supply of all materials
- c) provision of traffic management, and
- d) installation of pavement markers and pavement bars.

**Item 6355**      **Removal of existing raised pavement markers, by [method of removal]**

Work Operations incorporated in the above item include:

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*
- b) provision of traffic management, and
- c) all work necessary to remove the existing raised pavement markers by the method stated.

### **2.3 Calculation of quantities**

The length of longitudinal lines and spotting shall be calculated as the overall length of pavement surface subject to application of longitudinal line or spotting, inclusive of gaps for broken lines and spotting.

The area of transverse lines shall be calculated as the overall surface area of pavement actually covered by marking material, exclusive of gaps.

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