

# Main Roads Specification

**MRS16E**

## **Establishment and Monitoring Works**

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# Establishment and Monitoring Works

## 1 INTRODUCTION

This Specification applies to landscape and revegetation establishment and monitoring operations associated with road construction. This Specification shall be read in conjunction with MRS16 *General Requirements*, and the Annexure and Appendix of MRS16E.

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

This Specification forms part of the Main Roads Specifications and Technical Standards 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 covered by this Specification are listed in Table 2.1.

**Table 2.1 – Standard Work Items**

Standard Work Item No.	Landscape and Revegetation Works Description	Unit of Measurement
<b>WEED, PEST AND DISEASE CONTROL</b>		
3728P	Weed, Pest and Disease Control Proposal – Provisional Item (if ordered).	lump sum
3729P	Mechanical herbicide application [ <i>knock-down</i>   <i>residual</i> ] – Provisional Quantity (if ordered).	m <sup>2</sup>
3730P	Manual herbicide application [ <i>knock-down</i>   <i>residual</i> ]	m <sup>2</sup>
3731P	Hand removal of weeds.	lump sum
3732P	Target herbicide application [ <i>additional rate to items 3729</i>   <i>3730</i> ].	m <sup>2</sup>
3733P	Mechanical or manual pesticide application [ <i>pesticide type</i> ].	lump sum
<b>SLASHING AND BRUSHCUTTING</b>		
3738	Slashing.	m <sup>2</sup>
3739	Brushcutting.	m <sup>2</sup>
<b>LANDSCAPE AND REVEGETATION (LR) ESTABLISHMENT AND MONITORING</b>		
3795	LR Construction Establishment Period – Input Controlled.	lump sum
3797	LR Monitoring Period – Input Controlled.	lump sum
3798	LR Monitoring Period – Performance Based.	lump sum
3799P	Watering of plant material during LR monitoring period – Provisional (if ordered).	kilolitre

### 2.2 Standard Work Items

#### 2.2.1 Weed, Pest and Disease Control

##### Item 3728P Weed, Pest and Disease Control Proposal – Provisional Item (if ordered).

Work operations incorporated in the above item include –

- Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*; and
- Preparation of a Pest and Disease Control Proposal (P&DCP).

**Item 3729P Mechanical herbicide application – [knock-down / residual] – Provisional Quantity (if ordered).**

Work operations incorporated in the above item include –

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*; and
- b) The mechanical application of knock-down or residual herbicide using boom spray or high volume power applicator.

**Item 3730P Manual herbicide application – [knock-down / residual] – Provisional Quantity (if ordered).**

Work operations incorporated in the above item include –

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*; and
- b) The manual application of knock-down or residual herbicide from knapsack or similar applicator.

**Item 3731P Hand removal of weeds – Provisional Item (if ordered).**

Work operations incorporated in the above item include –

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*; and
- b) The manual removal and disposal of weeds.

**Item 3732P Target herbicide application – [additional rate to Items 3729 / 3730] – Provisional Quantity (if ordered).**

Work operations incorporated in the above item include –

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*; and
- b) The application of specific herbicides.

**Item 3733P Mechanical or manual pesticide application – [pesticide type] – Provisional Item (if ordered).**

Work operations incorporated in the above item include –

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*; and
- b) The application of pesticides.

## **2.2.2 Slashing and Brushcutting**

**Item 3738 Slashing.**

**Item 3739 Brushcutting.**

Work operations incorporated in the above items include –

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*;
- b) Work Operations incorporated in 3738 and 3739; and
- c) Cutting of grass and / or other vegetation.

## **2.2.3 Landscape and Revegetation Establishment and Monitoring**

**Item 3795 LR Construction Establishment Period – Input Controlled.**

Work operations incorporated in the above item include –

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*;
- b) Operations to ensure sustainability of plants; and
- c) supply and installation and re-establishment of failed landscape and revegetation plants.

**Item 3797 LR Monitoring Period – Input Controlled.**

Work operations incorporated in the above item include –

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*;

- b) Operations to ensure sustainability of recently installed plants;
- c) supply and installation and re-establishment of failed landscape and revegetation plants;
- d) monitoring of installations including joint inspections; and
- e) reporting.

**Item 3798 LR Monitoring Period – Performance Based.**

Work operations incorporated in the above item include –

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*;
- b) Seeding operations;
- c) operations to ensure sustainability of recently installed plants;
- d) supply and installation and re-establishment of failed landscape and revegetation plants;
- e) monitoring of installations including joint inspections; and
- f) reporting.

**Item 3799P Watering of plant material during LR Monitoring Period – Provisional Quantity (if ordered).**

Work operations incorporated in the above item include –

- a) Work Operations listed in Clause 2.1.5 of MRS01 *Introduction to Specifications*; and
- b) Watering of plant material where required, if ordered.

### **3 PAYMENT**

#### **3.1 Establishing and Monitoring – General**

Payment for planting operations is made separate to the landscape and revegetation planting operations, under Work Items 3787 to 3789 (refer MRS16C *Vegetation Works*).

#### **3.2 Selective Removal of Non-complying Vegetation from Seeded Areas**

No separate payment shall be made for selective removal of non-complying vegetation.

#### **3.3 Method of Payment for LR Establishment and Monitoring Works – Input Controlled**

Provided that the Contractor is fulfilling all of its obligations in the establishment and monitoring periods, payment for Items 3795 and 3797 shall be as follows –

- a) the first two progress payments shall each comprise 20% of the tendered amount;
- b) subsequent monthly progress payments shall comprise 10% of the tendered amount until total payments comprise 90% of the tendered amount; and
- c) the remaining 10% of the tendered amount is payable following the issue of the Certificate of Finalisation of the Monitoring Period (CFMP).

#### **3.4 Payment Due to Factors outside the Control of the Contractor**

The Principal will be responsible for payment of the replacement and repair of landscape and revegetation installations where damage has occurred due to factors outside the control of the Contractor, such as vehicular runoff, theft and / or vandalism.

It is the responsibility of the Contractor to do all that is reasonably practicable to minimize the risk of theft and / or vandalism of the landscape and revegetation installations.

#### **3.5 Method of Payment for LR Monitoring Works – Performance Based**

Provided that the performance of the seeded areas is consistent with the sample installation performance, payment for Item 3798 shall be as follows –

- a) the first two progress payments shall each comprise 20% of the tendered amount;

- b) subsequent monthly progress payments shall comprise 10% of the tendered amount until total payments to date comprise 90% of the tendered amount; and
- c) the remaining 10% of the tendered amount is payable following the issue of the Certificate of Finalisation of the Monitoring Period (CFMP).

### **3.6 *Payment for Watering of Plant Material during LR Monitoring Period***

Where the Superintendent directs the Contractor to water landscape and revegetation works during the monitoring period to prevent vegetation from becoming severely stressed in extreme weather conditions, payment shall be made at the tendered rate per kilolitre.

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