VicRoads Road Management Plan

VicRoads manages the roads for which it has responsibility under the Road Management Act 2004, including Ancillary Areas, in accordance with this Road Management Plan. These roads include the freeways, arterial roads and any other roads specified in the VicRoads ‘Register of Public Roads’.

The VicRoads ‘Register of Public Roads’ provides additional details of each of the roads for which VicRoads is responsible. The Register is not an ‘incorporated document’ in this Plan, and is available on the VicRoads’ website vicroads.vic.gov.au.

The Road Management Plan comprises the following documents:

- VicRoads Road Infrastructure Management System, which sets out details of the management system and policies to be implemented by VicRoads in the discharge of its duty to inspect, maintain and repair roads (Schedule A).

- VicRoads Road Maintenance Standards, which are the standards in accordance with which VicRoads performs its road management functions (Schedule B).

The VicRoads Road Management Plan has been reviewed and amended in accordance with Part 3 of the Road Management (General) Regulations 2005. The Road Management Plan, as amended, takes effect on 1 April 2014.

Peter Todd
Acting Chief Executive

### Review and amendment of VicRoads Road Management Plan

The VicRoads Road Management Plan has been reviewed and amended in accordance with Part 3 of the Road Management (General) Regulations 2005.

The Road Management Plan, as amended, takes effect on 1 April 2014.

<table>
<thead>
<tr>
<th>Version No.</th>
<th>Date of Effect</th>
<th>Amendment - Section</th>
<th>Amendment - Description</th>
</tr>
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<tr>
<td>Original</td>
<td>30 October 2004</td>
<td></td>
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<tr>
<td>2</td>
<td>1 April 2014</td>
<td>Schedule A</td>
<td>Making of the VicRoads Road Management Plan.</td>
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<td>Schedule A</td>
<td>Description of routine, periodic and rehabilitation maintenance (Phase 2) and provision for “managing route and lane usage” (Phase 3).</td>
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<td></td>
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<td>Schedule A</td>
<td>Reference made to Austroads User Satisfaction Index &amp; NPIs (Phase 5).</td>
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<td></td>
<td></td>
<td>Schedule B - Section 1</td>
<td>Description of the purpose of the Road Management Plan.</td>
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<tr>
<td></td>
<td></td>
<td>Schedule B - Section 2</td>
<td>Inclusion of the duties of cyclists and pedestrians.</td>
</tr>
<tr>
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<td>Schedule B - Section 4</td>
<td>Inclusion in Schedule B of clarifying Notes (i) to (iv).</td>
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<tr>
<td></td>
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<td>Schedule B - Table 2</td>
<td>Inclusion of specific action responses G &amp; H, for traffic signal related hazards.</td>
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<td>Schedule B - Table 3</td>
<td>Clarification of the description and intent of some of the listed hazard types.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Schedule B - Table 3</td>
<td>Provision of faster response times for tree / tree limb related hazards (on RMC 3, 5 &amp; 6 roads) and pavement markings related hazards (on all RMC roads).</td>
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<td>Schedule B - Table 3</td>
<td>Inclusion of four new traffic signal related hazards to replace the previous single ‘traffic signal inoperative or confusing’ hazard.</td>
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<td>Schedule B - Table 3</td>
<td>Notes after Table 3 – inclusion of a reference to section 109 of the Act in regard to the fencing of the road reserve.</td>
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<td>Schedule B - Section 6</td>
<td>Existing Table 4 deleted. Listing of Road Maintenance Categories now included as an incorporated document.</td>
</tr>
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<td></td>
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<td>Schedules A &amp; B</td>
<td>Minor editorial corrections, changes and clarifications to achieve accuracy, ensure consistency with the Act and improve readability, understanding and navigation of the document.</td>
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</tbody>
</table>

Notes:
A Includes primary amendments only (excludes minor or editorial changes).
B Road Management Plan as amended following a review by VicRoads as required under section 54(5) of the Road Management Act 2004.
Schedule A

VicRoads Road Infrastructure Management System

Outline

Road management involves the management of both physical road infrastructure and the aspects of the use and operation of that infrastructure. It applies to all road infrastructure including roads, bridges, roadsides, signs, delineation, traffic control equipment etc. It involves the inspection, maintenance and repair of that infrastructure. It may also involve the disposal of that infrastructure when no longer required, is replaced or is transferred to another agency.

This road infrastructure management system outlines VicRoads policies and practices for the maintenance of existing road infrastructure, the processes relating to road infrastructure maintenance and the responsibilities of VicRoads managers with respect to road infrastructure maintenance.

VicRoads road infrastructure management system aims to ensure that VicRoads meets its statutory responsibilities and provides best value to the community for the funding available for inspection, maintenance and repair.

Fundamental inputs to this system are:

- Government policies;
- Relevant legislation;
- Government objectives for road maintenance, in terms of Key Result Areas and Key Performance Indicators; and
- The Government budget for the maintenance and repair of road infrastructure.

Policies and procedures, being the key components of this system, are set out in the following five phases:

Phase 1 - Developing standards and guidelines

Covers developing road infrastructure management strategies and establishing maintenance standards and road infrastructure performance targets for managing road infrastructure together with those aspects of the operation and use of the road network that affect road infrastructure condition. It also covers preparing guidelines for development of the maintenance program.

Phase 2 - Developing the maintenance program

Covers using the results of road infrastructure condition surveys, together with maintenance standards and performance targets, to identify gaps in performance and options for managing those gaps. This may involve repair or replacement and/or modifying the operation/use of road infrastructure. It also covers the methods used to develop priorities and select treatments for inclusion in the road maintenance program, taking into account current strategies and the likely maintenance budget.

Phase 3 - Implementing the maintenance program

Covers developing specifications and contract administration arrangements for delivering the maintenance program. It also includes receiving and acting on customer feedback, preparing incident reports and record keeping.

Phase 4 - Auditing

Covers auditing of completed maintenance works. It also covers the procedures for collecting and storing information regarding road infrastructure condition and use.

Phase 5 - Reviewing

Covers reviewing road infrastructure performance following delivery of the maintenance program, together with periodic reviews of management strategies to assess that the maintenance program has delivered the expected benefits to road users and stakeholders. This phase also involves taking account of any external factors that are likely to influence the next program cycle.

The five phases are shown in the following VicRoads Road Infrastructure Management System, Process Flow Diagram, which is adapted from Austroads ‘Integrated Asset Management Guidelines for Road Networks’.
### Process flow diagram

<table>
<thead>
<tr>
<th>INPUTS</th>
<th>PHASE 1</th>
<th>PHASE 2</th>
<th>PHASE 3</th>
<th>PHASE 4</th>
<th>PHASE 5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Developing standards and guidelines</td>
<td>Developing maintenance program</td>
<td>Implementing maintenance program</td>
<td>Auditing</td>
<td>Reviewing</td>
</tr>
<tr>
<td>Government policies and legislation</td>
<td>Maintenance strategies.</td>
<td>Road management performance gaps</td>
<td>Specifications and surveillance plans</td>
<td>Audit of completed works</td>
<td>Periodic reviews of:</td>
</tr>
<tr>
<td>Key Result Areas and Key Performance Indicators</td>
<td>Register of Public Roads</td>
<td>Funding scenarios</td>
<td>Works program</td>
<td>Road infrastructure condition surveys</td>
<td>- road management performance</td>
</tr>
<tr>
<td>Maintenance budget</td>
<td>Road Asset System</td>
<td>Road infrastructure needs and priorities</td>
<td>Records of maintenance inspections and completed work</td>
<td></td>
<td>- road management maintenance strategies</td>
</tr>
<tr>
<td></td>
<td>Road management standards and guidelines</td>
<td>Maintenance program</td>
<td>Customer issues</td>
<td></td>
<td>- stakeholder requirements</td>
</tr>
<tr>
<td></td>
<td>Road management performance targets</td>
<td></td>
<td>Controlling heavy vehicle use</td>
<td></td>
<td>- customer feedback</td>
</tr>
<tr>
<td></td>
<td>Mass and dimension limits for heavy vehicles</td>
<td></td>
<td></td>
<td></td>
<td>Assess the effects of external influences</td>
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<tr>
<td></td>
<td>Program development guidelines</td>
<td></td>
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</tbody>
</table>

Adapted from AUSTROADS Integrated Asset Management Guidelines for Road Networks (AP-R202)
Phase 1 - Developing Standards and Guidelines

1. Overview
The Government and VicRoads, in consultation with councils and other stakeholders, determine the roads for which VicRoads will be the coordinating road authority. These roads are recorded in the VicRoads Register of Public Roads (in accordance with the Road Management Act 2004 (the Act)).

VicRoads identifies the road infrastructure on all roads or parts of roads for which it is the responsible road authority, in accordance with the Act and any Code of Practice referred to in s37(3) of the Act.

VicRoads maintains a road asset system that records the location and nature of key infrastructure. These details are recorded when infrastructure is built or installed, and then updated progressively as any road infrastructure is changed.

Each year, as part of the VicRoads Corporate Business Planning process, VicRoads prepares strategic guidelines to assist with developing the maintenance program and recommendations for road improvements for the coming year. These guidelines address policy initiatives of the Victorian Government, ongoing directions identified in road management strategies, and the effects of any changes in external influences.

Consistent with its management strategies, VicRoads determines inspection, maintenance and repair standards with respect to infrastructure (eg. roadways and pathways) and road-related infrastructure (eg. signs, lighting, etc).

VicRoads aims to establish maintenance standards and road infrastructure performance targets that reflect the best value for the community given the funding available for inspection, maintenance and repair.

These maintenance standards are a key part of VicRoads Road Management Plan.

This is achieved using the following process:

Developing and publishing maintenance standards, which involves establishing, for different classes of roads and assets, the maximum acceptable inspection periods, severity of defects that can be tolerated and time frames within which defects are to be repaired.

Performance targets are also used to identify the desirable quality of service to be provided within the funding available for inspection, maintenance and repair of road infrastructure. A number of these targets will come from maintenance strategies.

2. Policies

2.1 The location, type, quantity and condition of important road infrastructure will be systematically monitored and recorded in VicRoads road asset system.

2.2 The safety of road users, the integrity of road infrastructure and the amenity of roadsides are important considerations in inspection, maintenance and repair standards.

2.3 Inspection, maintenance and repair standards and performance targets will be established using a risk management approach to best meet reasonable community expectations within the budget available for inspection, maintenance and repair. Road user costs will be taken into account when establishing performance targets.

2.4 Inspection, maintenance and repair standards and performance targets will vary across the road network in line with relevant risk factors, such as the nature and volume of traffic using the road, operating speed, the susceptibility of road infrastructure to deterioration, the cost effectiveness of repairs and the competing priorities for funding.

VicRoads will make its inspection, maintenance and repair standards available to the public.

2.5 VicRoads will prepare Program Development Guidelines each year to provide strategic direction for the development of its maintenance program.
Phase 2 - Developing the Maintenance Program

1. Overview

VicRoads develops its maintenance program as part of the annual business plan development cycle. Development of the maintenance program is focused on:

- implementing established road infrastructure management strategies; and
- achieving established maintenance standards and road infrastructure performance targets for the lowest life cycle cost.

This is achieved through the following processes:

Identifying gaps in road infrastructure performance: This involves comparing the most recent results from periodic road infrastructure condition surveys to maintenance standards and performance targets. A preliminary network level analysis is then carried out to examine the options available for managing identified performance gaps. Options are categorised into routine maintenance, periodic maintenance or rehabilitation activities as well as opportunities for changing the operation and use of road infrastructure e.g. control of heavy vehicles.

- Routine maintenance addresses minor defects before significant deterioration occurs and ensures road user safety. Typically this involves the identification and repair of defects such as potholes before they grow into larger patches.
- Periodic maintenance, sometimes referred to as asset preservation, is more substantial work designed to prevent deterioration of road infrastructure at minimum costs. Road resurfacing and corrosion protection for bridges are typical periodic work.
- Rehabilitation restores road infrastructure that has deteriorated and is providing a reduced level of service. These are more extensive repairs that will extend the service life of road infrastructure. Rehabilitation also reduces the demand for routine maintenance.

Developing initial maintenance program targets: This uses the current maintenance program as a starting point and considers the effects of likely funding scenarios, changes in external influences as well as any recent changes to management strategies. It also involves adjustments to maintenance program targets based on the preliminary network level analysis of road, structure, roadside, traffic signal and on-road electrical asset maintenance needs.

Preparing the maintenance program: This aims to identify the best mix of maintenance treatments that can satisfy the identified road infrastructure maintenance needs at the lowest life-cycle cost and within the level of funding provided. The routine maintenance component of the program is first priority and is based on achieving VicRoads’ maintenance standards. Preparing the periodic maintenance and rehabilitation components of the program then involves identifying candidate maintenance projects and assigning priorities to each project. These priorities are used to help determine which projects are included in the annual maintenance program, managed within the available budget. Other program development tools are also used to assist with identifying the best mix of maintenance treatments. Components of the maintenance program deal with the road, structures and roadside, as well as road safety, road use and traffic management facilities maintenance activities.

2. Policies

2.1 Candidate road pavement and road surface projects will be ranked in priority order using the results of road condition surveys and an analysis of relative risks and needs.

2.2 Candidate structural maintenance projects (including works on heritage bridges) will be ranked in priority order using the risk management approach.

2.3 Candidate roadside maintenance projects will be identified and prioritised based on meeting VicRoads’ statutory responsibilities, preserving roadside asset integrity as well as satisfying road safety criteria and environmental goals.

2.4 Candidate electrical maintenance projects are ranked in priority order using asset condition and relative risks and needs.

2.5 Inspections will be carried out of road infrastructure identified as potential candidates for periodic maintenance or rehabilitation to identify the most cost effective treatment and scope of each project.
Phase 3 - Implementing the Maintenance Program

1. Overview
Maintenance works are carried out in ways that aim to ensure the safety of both road workers and road users as well as minimising delays and inconvenience to traffic.

VicRoads generally uses contractors to manage the delivery of its maintenance program.

Comprehensive and accurate records of day-to-day inspections, maintenance activities and completed works are an important part of the maintenance program delivery process.

This is achieved using the following processes:

**Developing maintenance specifications and surveillance plans,** which involves documenting performance requirements and administration arrangements that aid in the achievement of VicRoads’ maintenance standards in maintenance contracts.

**Managing customer comment and feedback,** which involves VicRoads receiving comments and feedback on road infrastructure condition from a wide variety of sources, recording that information and then acting on it in a systematic manner.

**Managing incidents,** which involves the early identification and appropriate response to incidents on freeways and arterial roads, such as the presence of debris, vehicle breakdowns and other safety hazards. An important part of managing incidents is to provide road users with timely advice of how to avoid delays that may be associated with incidents. The management of some larger incidents comes under State emergency management planning arrangements, where VicRoads performs a support role. The inspection requirements for sites of fatal crashes on freeways and arterial roads are set out in the VicRoads ‘Guidelines to Complete Fatal Crash Reports’. The inspections are conducted to identify possible contributions to these crashes from road conditions and/or road operations, with the aim of identifying possible works that would help reduce the risk of future crashes. Sites of significant crashes and where a “Notice of Incident” is received may also be inspected.

**Managing the delivery of maintenance works,** which involves the systematic surveillance and auditing of each contractor’s quality assurance system and operations to verify compliance with contract requirements, including the achievement of maintenance standards.

**Controlling heavy vehicle mass and dimension:** Heavy vehicles are responsible for causing damage to road pavements and bridges. To reduce the incidence of vehicles carrying more than the legal mass, VicRoads uses quality assurance programs for heavy vehicle operators to self-regulate compliance with mass limits. VicRoads delivers education and training programs to individuals and companies involved with operating heavy vehicles, as well as carrying out random on-road checks for compliance with mass limits. VicRoads ensures that permits are issued to carry loads above general mass limits, provided special vehicles are used and specific routes are followed.

VicRoads also designates routes for some classes of heavy vehicles e.g. B Doubles and over-dimensional vehicles, to ensure damage to roads and bridges is minimised.

**Managing route and lane usage,** to protect both road infrastructure and vehicles using the road. VicRoads may place restrictions on larger vehicles so that, where standard bridge and vegetation height and width clearances are not feasible, traffic lanes and routes are managed safely, (e.g. provision of warning signs for low vertical clearance under bridges and vegetation).

2. Policies

2.1 VicRoads’ maintenance specifications will be based on VicRoads’ established maintenance standards.

2.2 Appropriate, timely responses will be provided to comments and feedback from road users and the community regarding road conditions and any safety concerns, including feedback to the person initiating the contact and confirming action taken.

2.3 VicRoads will prepare incident reports for fatal crashes and other significant incidents on freeways and arterial roads using a risk-based approach. Recommendations of these reports will be considered to identify and implement appropriate safety treatments, intended to help reduce the risk of future crashes.

2.4 Maintenance works will be carried out in ways that appropriately manage safety for road users and road workers and in a manner that minimises delays and inconvenience to road users and the community.

2.5 Accurate records will be kept of completed maintenance works, including the type of work, its location and the time when the maintenance work was carried out.
Phase 4 - Auditing

1. Overview
Audits are carried out by VicRoads to help identify whether the maintenance program delivered the intended outcomes. Audits commence when implementation of the maintenance program begins, and are part of VicRoads’ contract management processes.

Road infrastructure condition surveys are carried out to provide information for audits, to enable changes in road infrastructure condition to be monitored over time, and to provide up to date condition data for the next road infrastructure maintenance program development cycle.

The maintenance program is also intended to protect public investment in road infrastructure. This is monitored by using the results of infrastructure condition surveys to regularly update and report the valuation of infrastructure.

This is achieved using the following processes:

Auditing of maintenance program outputs, which is intended to confirm whether maintenance projects were delivered on time, within budget and to the specified quality.

Monitoring road infrastructure condition, which involves conducting surveys to collect information on road infrastructure condition. Separate procedures establish the requirements for systematic monitoring of road pavements, road surfaces, structures, roadsides and electrical road infrastructure.

2. Policies
2.1 Road pavement condition surveys will be conducted bi-annually on declared roads, except for a selected sample of roads that are surveyed annually to provide a benchmark for assessment of annual changes in condition in different parts of the State. Annual reports will be prepared to show the surveyed road conditions within each VicRoads region.

2.2 Road surface condition surveys will be carried out periodically on declared roads (including sealed shoulders). In addition, skid resistance surveys will be carried out in a systematic manner with priority given to high risk sites, sites with a crash history and sites identified from the results of road surface condition surveys.

2.3 Structure condition monitoring is carried out to assess the condition of each structure and its principal components. New structures will be inspected within 12 months of commissioning. All other structures, including heritage bridges, will be inspected every two to five years, depending on their condition.

2.4 VicRoads will periodically report the effect of its maintenance program on infrastructure condition and on the valuation of that infrastructure.

Phase 5 - Reviewing

1. Overview
Reviews are carried out by VicRoads to ensure that the maintenance program is achieving the objectives of road infrastructure management strategies and that customers and stakeholders are consulted regarding the outcomes of the maintenance program.

This is achieved using the following processes:

Reviewing infrastructure performance, which aims to determine whether performance gaps have been adequately addressed. The outputs of condition surveys and maintenance inspection records are used to assist with these reviews.

Reviewing road infrastructure management strategies, which aims to determine whether the objectives of strategies have been achieved. This type of review would normally be conducted every few years. It also may involve an assessment of whether there is a need to update strategies.

Reviewing customer feedback and stakeholder requirements, which involves the regular assessment of customer and stakeholder satisfaction with the outcomes of maintenance programs. It also involves the analysis of outcomes from:

- Austroads road user surveys to measure its User Satisfaction Index, together with the collection of performance data to produce its National Performance Indicators; and
- VicRoads’ Enquiry Tracking System to ensure that standards for managing customer feedback are being met.

Assessing changes in external influences, which involves continuous monitoring of factors outside of VicRoads’ control that may affect future maintenance demands. These factors may include changes in weather patterns, changes in traffic loading, availability of maintenance materials, changes in land use, changes in funding etc.

2. Policies
2.1 The outcomes of maintenance programs will be reviewed and the results of these reviews will be used to reassess performance targets and maintenance strategies.

2.2 A sample of customers and stakeholders will be periodically consulted to determine their satisfaction with maintenance program outcomes.
Schedule B

VicRoads Road Maintenance Standards

1. Road Management Plan
The following information is Schedule B to VicRoads Road Management Plan. The purpose of the plan is to:
- provide a safe and efficient road network for use by all members of the public
- establish road asset management practices focussed on delivering optimal outcomes while having regard to affordability, available resources, and the policies, priorities and strategies of governments and road authorities
- set out the policies and procedures adopted by VicRoads to achieve its road maintenance standards; and
- describe the inspection frequencies and condition standards adopted by VicRoads for various traffic conditions.

2. Duties of Road Users
Road users have a duty in respect of the use of a highway. For drivers, this duty is set out in section 17A of the Road Safety Act 1986 which states:

“(1) A person who drives a motor vehicle on a highway must drive in a safe manner having regard to all the relevant factors, including (without limiting generality) the -
(a) physical characteristics of the road;
(b) prevailing weather conditions;
(c) level of visibility;
(d) condition of the motor vehicle;
(e) prevailing traffic conditions;
(f) relevant road laws and advisory signs;
(g) physical and mental condition of the driver.”

For cyclists and pedestrians, the duty includes keeping a proper look out and being responsible for their own safety.

3. Definitions
Hazard - for the purposes of these maintenance standards, a hazard is that described in Table 3.

Hazard Inspection Frequency - is the frequency of inspections of the road to identify hazards. The nominated time is not precise and a 10% margin is allowable.

Where the required frequency would result in the inspection falling on a day other than a Weekday, the inspection may be undertaken on the first following Weekday.

Response Code - is a code, designated by a letter from ‘A’ to ‘H’, that indicates the control mechanism and the response time for addressing a particular hazard on a particular road. The control mechanisms are included in Table 2.

Response Time - is the time allowed to respond to a hazard, which is based on consideration of the hazard type and severity. Response Time is measured from the time the hazard is identified by, or notified to, VicRoads. The nominated time is not precise and a 10% margin is allowable.

Road Maintenance Category (RMC) - the nominated RMC for each road is determined by VicRoads according to an assessment of risk, taking into account factors such as road classification, road type and volume and type of traffic. The RMC for a road is designated by a number from ‘1’ to ‘6’ and is contained in the VicRoads Road Maintenance Category - Road List (see Section 6 for further details).

Weekday - any day other than a Saturday or Sunday or any public holiday recognised in Victoria within the place where the inspections are to be undertaken.

4. Hazard Inspection Type and Frequency
Table 1 describes the hazard inspection type and frequency for each RMC. Table 2 identifies the response codes, and Table 3 describes the hazard and the response code applicable to each RMC.

Note:
(i) The road infrastructure and roadside aspects listed in Table 3 refers to those for which VicRoads is the responsible road authority.
(ii) Where VicRoads identifies a hazard to road users caused by the condition of the infrastructure, assets or roadside, which is the responsibility of an authority other than VicRoads, VicRoads will notify the responsible authority in accordance with clause 9(2), Schedule 7 of the Act.
(iii) A duty to inspect, maintain and repair a road does not impose a duty to upgrade or maintain a road to a higher standard than that to which the road was constructed (s.40(2) of the Act).
(iv) VicRoads conducts inspections of the parts of an arterial road intersecting with a municipal road within the limits of its responsibility and with respect to all road infrastructure that is provided for the operation of the intersection in accordance with clauses 9 and 11 of the Code of Practice for Operational Responsibility for Public Roads (refer Victoria Government Gazette No. S267 Friday 17 December 2004 or as amended from time to time).
Table 1 - Hazard Inspection Type and Frequency by RMC

<table>
<thead>
<tr>
<th>Inspection Type</th>
<th>RMC 1</th>
<th>RMC 2</th>
<th>RMC 3</th>
<th>RMC 4</th>
<th>RMC 5</th>
<th>RMC 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day-Time</td>
<td>Each Weekday</td>
<td>Twice per week</td>
<td>Weekly</td>
<td>Every 2nd week</td>
<td>Monthly</td>
<td>Not Exceeding 6 Months</td>
</tr>
<tr>
<td>Night-Time</td>
<td>Not Exceeding 6 Months</td>
<td>Not Exceeding 6 Months</td>
<td>Not Exceeding 6 Months</td>
<td>Not Exceeding 1 Year</td>
<td>Not Exceeding 1 Year</td>
<td>Not Exceeding 1 Year</td>
</tr>
</tbody>
</table>

**Note:** The Hazard Inspection Frequency for each RMC does not apply to:

- pedestrian overpass or underpass structures and pathway structures located in the roadside remote from the roadway; and

pathways located within the road reservation of a freeway.

Inspection of these road infrastructure elements is to be carried out on a twice yearly frequency, with a maximum interval of six months (with a one month maximum latitude).

Table 2 - Road Risk Action Response

<table>
<thead>
<tr>
<th>Response Code</th>
<th>Control Mechanism</th>
<th>Response Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
<td>Within 4 hours of inspection or notification</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td>Within 24 hours of inspection or notification</td>
</tr>
<tr>
<td>C</td>
<td></td>
<td>Within one week of inspection or notification</td>
</tr>
<tr>
<td>D</td>
<td>Inspect and rectify, if feasible, or provide appropriate warning. #</td>
<td>Within one month of inspection or notification</td>
</tr>
<tr>
<td>E</td>
<td></td>
<td>Within 3 months of inspection or notification</td>
</tr>
<tr>
<td>F</td>
<td></td>
<td>Within 6 months of inspection or notification</td>
</tr>
<tr>
<td>G**</td>
<td></td>
<td>Within 8 hours of inspection or notification</td>
</tr>
<tr>
<td>H**</td>
<td></td>
<td>Within 16 hours of inspection or notification</td>
</tr>
</tbody>
</table>

**Note:** These response codes are only relevant to traffic signal related hazards.

**Appropriate Warning:**

Where because of the nature of the work required, level of resources required or workload, it is not feasible to rectify a hazard within the time shown in Table 2, appropriate warning of the hazard is to be provided by VicRoads or its contractor(s) until a suitable repair or treatment can be completed.

**Appropriate warning** may include, but is not limited to the following:

- Provision of warning signs
- Traffic control action
- Diverting traffic around the site
- Installation of temporary speed limits
- Lane closures
- Closure of the road to use by certain vehicles (eg. a load limit)
- Road closures
### Table 3 - Hazard Response - Response Code by Hazard and RMC

<table>
<thead>
<tr>
<th>Description Of Hazard</th>
<th>RMC</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pavements</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Obstructions and Substances in Traffic Lanes</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Materials fallen from vehicles, dead animals, wet clay and other slippery substances, hazardous materials, accumulation of dirt or granular materials on the traffic lane of sealed roads</td>
<td>A</td>
<td>A</td>
<td>B</td>
<td>B</td>
<td>C</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>Ponding of water &gt;300mm deep, fallen trees, oil spills, stray livestock</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>B</td>
<td>B</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td><strong>Pavement or Surface Defects</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Potholes in traffic lane of a sealed pavement greater than 300mm in diameter and greater than 100mm deep or in the traffic lane of an unsealed pavement greater than 500mm diameter and 150mm deep</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>C</td>
<td>D</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>Where assessment in accordance with the skid resistance policy indicates remediation is required.</td>
<td>C</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>Deformations &gt;100mm under a 3m straight edge</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>C</td>
<td>D</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>Edge drops onto unsealed shoulder &gt;100mm</td>
<td>n/a</td>
<td>B</td>
<td>C</td>
<td>C</td>
<td>D</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td><strong>Drainage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Damaged or missing drainage pit lids, surrounds or grates in pedestrian areas or traffic lanes</td>
<td>A</td>
<td>B</td>
<td>B</td>
<td>D</td>
<td>D</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td><strong>Roadside</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Vegetation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tree limbs or trees that are in immediate likelihood of falling on the roadway</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>B</td>
<td>B</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Trees shrubs and grasses that have grown to restrict design sight distance to intersections or restrict viewing of safety signs.</td>
<td>C</td>
<td>C</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>Vegetation clearance less than 4.5m in height, unless signed otherwise, over traffic lanes and the trafficable portion of shoulders, or protruding over the edge of seal.</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>E</td>
<td>E</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>Vegetation clearance less than 2.5m in height, unless signed otherwise, over a pedestrian/bicycle path, or protruding over the path edge.</td>
<td>E</td>
<td>E</td>
<td>E</td>
<td>E</td>
<td>E</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td><strong>Roadside Furniture</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safety Signs** - Missing, illegible, damaged, and misleading making them substantially ineffective.</td>
<td>C</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>Guideposts - Missing or damaged at a critical location** making them substantially ineffective</td>
<td>C</td>
<td>D</td>
<td>D</td>
<td>E</td>
<td>E</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>Safety Barriers and Fencing - Missing or damaged at a critical location** making them substantially ineffective</td>
<td>C</td>
<td>D</td>
<td>D</td>
<td>E</td>
<td>E</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>Islands, Footpaths and Bicycle/Shared Paths - Defective pedestrian areas with a step &gt; 50mm</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>E</td>
<td>E</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>Pavement Markings - Missing, illegible or misleading at a critical location**</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>B</td>
<td>B</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td><strong>Structures</strong>**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visible damage likely to affect road user or public safety</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>B</td>
<td>B</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td><strong>Traffic Signals &amp; Other On-Road Electrical Assets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traffic signal failure</td>
<td>G</td>
<td>G</td>
<td>G</td>
<td>G</td>
<td>G</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Traffic signal controller or traffic signal pole knocked down</td>
<td>H</td>
<td>H</td>
<td>H</td>
<td>H</td>
<td>H</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Traffic signal facing wrong direction</td>
<td>G</td>
<td>G</td>
<td>G</td>
<td>G</td>
<td>G</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Walk/do not walk globe inoperative</td>
<td>G</td>
<td>G</td>
<td>G</td>
<td>G</td>
<td>G</td>
<td>n/a</td>
<td></td>
</tr>
</tbody>
</table>
** safety signs

- is a road sign that provides the driver with advice on the safe use of the road. For example, a regulatory sign, warning sign or hazard marker as defined by VicRoads Traffic Engineering Manual Volume 2. This manual is not an “incorporated document” in the Road Management Plan. These signs may be static or electronic. This manual may be viewed or a copy obtained from the VicRoads’ website (vicroads.vic.gov.au).
- for advance warning and direction signs located on a municipal road or non-arterial State road approach to an intersection with an arterial road (being signs that directly relate to the operation of the intersection), hazard inspections by VicRoads will be conducted at the relevant frequency equivalent to the ‘night-time’ frequency for the intersecting arterial road as specified in Table 1.

*** critical location - is a location where the road alignment and/or pavement width and/or geometry are identified by additional markings or furniture to guide the travelling public (cars, trucks, motorcycles, bicycles and pedestrians).

****structures - are bridges, culverts, sign gantries or other designated structures (e.g. retaining walls, noise walls, high mast lighting structures) which have been assigned an asset structures number under the VicRoads Bridge Management System.

Note that, under the Act:
- s.40(4) - the road authority’s statutory duty to inspect does not apply to any roadside that has not been developed by a road authority for use by the public as a roadway or pathway, nor to non-road infrastructure which is installed in the road reserve.
- s.107 - the road authority does not have a statutory duty or a common law duty to maintain, inspect or repair the roadside of any public highway (whether or not a public road).
- s.109 - the road authority does not have any liability for any damages that may be caused by reason of any road not being fenced in or fenced off.

5. Additional Maintenance Activity

Maintenance of the road network is also carried out to preserve the road infrastructure. The details of this maintenance are described in the Road Infrastructure Management System - Schedule A.

6. Road Maintenance Category - Road List

The VicRoads Road Maintenance Category - Road List records the RMC for each road or each section of road where different sections have different RMCs.

The VicRoads Road Maintenance Category - Road List is not contained in this Road Management Plan but is incorporated in full in accordance with section 53(2) of the Act.

The Road Maintenance Category - Road List may be amended when required to accommodate changes in road use, the construction of new roads or changing management responsibilities.

It is recommended that this Road Management Plan be read together with the latest version of the VicRoads Road Maintenance Category - Road List which may be viewed or a copy obtained from the VicRoads website (vicroads.vic.gov.au).

7. References

Code of Practice for Operational Responsibility for Public Roads:

vicroads.vic.gov.au/Home/Moreinfoandservices/RoadManagementAndDesign/RoadManagementActRegulationsCodes/RoadManagementPlan.htm

Road Management Act 2004: legislation.vic.gov.au


VicRoads Road Maintenance Category - Road List:

vicroads.vic.gov.au/Home/Moreinfoandservices/RoadManagementAndDesign/RoadManagementActRegulationsCodes/RoadManagementPlan.htm

VicRoads Traffic Engineering Manual Volume 2:
