

**Manual**

**Road Maintenance Performance Contract (RMPC)  
Sole Invitee**

**September 2018**

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# Contents

- 1 Preliminary .....1**
- 1.1 Introduction ..... 1
- 1.2 RMPC operating arrangements ..... 1
  - 1.2.1 *Historical*.....1
  - 1.2.2 *Competitive environment and best value* .....2
  - 1.2.3 *Strategy-driven maintenance* .....2
- 1.3 Vision statement for Sole Invitee RMPC delivery ..... 3
- 1.4 Defined terms in the RMPC documents ..... 4
- 2 RMPC process – key features .....5**
- 2.1 Roles of the parties ..... 5
- 2.2 Partnering ..... 5
- 2.3 Partners in Government Agreement (State and local governments)..... 6
- 2.4 The department’s role ..... 6
- 2.5 The Contractor’s roles ..... 6
  - 2.5.1 *Network steward*.....6
  - 2.5.2 *Maintenance Manager and Supervisor* .....7
  - 2.5.3 *Operations Contractor* .....7
- 2.6 Emphasis on planning ..... 7
  - 2.6.1 *General*.....7
  - 2.6.2 *Planning prior to Contract Period (by the department and Contractor)*.....7
  - 2.6.3 *Planning during the Contract Period* .....8
- 2.7 Systematic Approach to the Management of Maintenance ..... 8
  - 2.7.1 *General*.....8
  - 2.7.2 *System procedures*.....8
  - 2.7.3 *System outputs*..... 10
- 2.8 Financial management ..... 10
  - 2.8.1 *Discretionary management of expenditures*.....10
  - 2.8.2 *Variations*.....11
  - 2.8.3 *Progress Claims* .....11
- 2.9 Initiation of Work ..... 11
  - 2.9.1 *Intervention Level / Response Time*.....11
  - 2.9.2 *Department initiation*.....12
- 3 Key contractual elements ..... 12**
- 3.1 Type of Contract ..... 12
  - 3.1.1 *General*.....12
  - 3.1.2 *Duration* .....12
  - 3.1.3 *Composition*.....13
  - 3.1.4 *Extent of changes*.....13
- 3.2 Work included under RMPC ..... 13
  - 3.2.1 *Routine Maintenance* .....13
  - 3.2.2 *Emergency Maintenance*.....13
  - 3.2.3 *Minor Works (applicable to Contractors with sole invitee status)*.....14
  - 3.2.4 *Dayworks*.....14
  - 3.2.5 *Provisional Sums*.....14
- 3.3 Liability for non-performance of Maintenance ..... 14
- 3.4 Quality, safety and environmental requirements ..... 16

3.5	Other significant features .....	17
3.5.1	<i>Insurance</i> .....	17
3.5.2	<i>Rework</i> .....	17
3.6	Dispute resolution .....	17
<b>4</b>	<b>The RMPC process .....</b>	<b>18</b>
4.1	General .....	18
4.1.1	<i>Planning prior to agreement</i> .....	18
4.1.2	<i>Reaching agreement</i> .....	21
4.1.3	<i>Identify Maintenance in advance</i> .....	22
4.1.4	<i>Plan and prioritise</i> .....	23
4.1.5	<i>Undertake Maintenance</i> .....	23
4.1.6	<i>Record of completed Works</i> .....	24
4.2	Administration of the Contract .....	25
4.2.1	<i>Contractor</i> .....	25
4.2.2	<i>The department</i> .....	25
4.2.3	<i>Additional Activities</i> .....	25
4.3	Renegotiation .....	25
<b>5</b>	<b>Productivity and performance .....</b>	<b>25</b>
5.1	General .....	25
5.2	Performance assessment methodology .....	26
5.2.1	<i>Determining key performance indicators</i> .....	26
5.2.2	<i>Performance initiatives</i> .....	27
5.2.3	<i>Supplier benchmarking for key performance indicators</i> .....	29
5.3	Rating and scoring calculations of Contractors .....	29
5.3.1	<i>Productivity gains</i> .....	29
5.3.2	<i>Work health and safety</i> .....	30
5.3.3	<i>Road user relationship</i> .....	30
5.3.4	<i>Delivery system management</i> .....	31
5.3.5	<i>Stewardship</i> .....	31
5.3.6	<i>Process</i> .....	31
5.3.7	<i>Operational</i> .....	31
5.4	Rating and scoring calculations of Principal's Representative .....	31
5.5	Performance assessment template scoring .....	31
5.6	Reporting on performance assessment .....	32
	<b>Appendix 1: Road Reference system (RR) conventions .....</b>	<b>33</b>
	<b>Glossary of terms .....</b>	<b>34</b>

## Tables

Table 1.2.1 – RMPC documents .....	2
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## Figures

Figure 4.1.1-A – Management of RMPC processes (example for a 12-month Contract Period) .....	19
Figure 4.1.1-B – System approach to management of maintenance .....	20

## **1 Preliminary**

### **1.1 Introduction**

This *Road Maintenance Performance Contract (RMPC) Sole Invitee* manual provides information for those responsible for the delivery of the Department of Transport and Main Roads' (the department) routine road maintenance program. The manual replaces a previous version known as *Volume 1 RMPC Sole Invitee*. The department can realise its objective to achieve maximum efficiency in the delivery of maintenance services through the productivity-based contractual agreement.

The department offers Routine Maintenance works to Local Governments (LGs) and RoadTek on a sole invitee basis. This arrangement is subject to value for money being achieved from the negotiated Contracts. In the context of road works delivery, value for money is defined as 'the achievement of maximum overall benefit to the users of the facility and the wider community (including the broader social aspects) at a suitable agency cost'. These Contracts are benchmarked against other sector performance, thus the department is assured of obtaining 'best value' for its maintenance dollar.

Price is not the sole determinant of maximum overall benefit. It is expected that non-price factors, such as performance of the stewardship role, productivity and provision of a safe user environment, would also be considered in determining value for money and the maximum overall benefit under RMPC sole invitee arrangements.

Both parties acknowledge that, notwithstanding the contractual nature of the sole invitee relationship, emphasis is also placed on goodwill, good faith and cooperation between the parties for the attainment of mutual goals. They acknowledge the intention to adopt a 'partnering-type approach' to administering the contractual arrangements under sole invitee arrangements.

As part of this approach, the negotiations of unit prices in the Contract shall be on an open-book basis so that a better appreciation of costs is understood by both parties, with a view to implementing strategies to keep track of price increase or decrease and operational cost.

It is expected that value for money will be facilitated by the adoption of this relational approach to RMPC sole invitee works delivery.

### **1.2 RMPC operating arrangements**

#### **1.2.1 Historical**

Maintenance of state-controlled roads have been carried out by Local Governments and RoadTek for over 70 years. Each local government has been reimbursed for the actual cost of work undertaken, as the agent of the department. Maintenance by RoadTek has also been at cost plus arrangement.

Sole invitation arrangements for capital works have recently been replaced by the Transport Infrastructure Contract – Sole Invitee (TIC-SI) (formally known as Road Performance Contract (RPC)) and Minor Infrastructure Contract – Sole Invitee (MIC-SI) (formerly known as Minor Works Performance Contract (MWPC)). Similar to RMPC, TIC-SI and MIC-SI are used on a sole invitee basis in delivering construction works by LGs or RoadTek.

The original RMPC documentation consisted of four volumes, but these have now been replaced, as shown in Table 1.2.1.

**Table 1.2.1 – RMPC documents**

Pre-April 2015	Post-April 2015
Volume 1 RMPC – Sole Invitee	<ul style="list-style-type: none"> <li>• Manual RMPC – Sole Invitee</li> <li>• General Conditions</li> <li>• Invitation to Offer and Forms</li> </ul>
Volume 2 RMPC – Open Market	Replace with Road Asset Management Contract (RAMC)
Volume 3 RMPC – Guidelines for Undertaking Routine Maintenance	Routine Maintenance Guidelines (available on the department's website)
Volume 4 RMPC – Management System User Guide	Deleted

### 1.2.2 Competitive environment and best value

The *Transport Infrastructure Act 1994* requires the department to obtain 'best value' in the expenditure of maintenance funds on State Controlled Roads. In addition, the federal department responsible for transport has required all works on National Highways to be subject to contract since 1 July 1994.

The RMPC, as a result of the ongoing productivity-based, sole invitee arrangements with LGs and RoadTek, satisfies these requirements by providing the department with 'best value' for its maintenance dollar while giving Contractors the opportunity to increase efficiency in their maintenance operations.

### 1.2.3 Strategy-driven maintenance

The maintenance strategy is an integral part of the road network strategy. The maintenance strategy provides guidelines to provide the appropriate level of maintenance investment in infrastructure. It focuses on the implementation of efficient and effective maintenance practices to enable the goals and objectives of the road network strategy to be addressed.

Key maintenance strategies include:

- Recognise the identified industry requirements for maintenance of the Network.
- Economically justify the maintenance investment in the Network and the need for additional funding.
- Identify the split between the maintenance expenditure and capital expenditure and show the implications of a change of the margin between the two can be determined on the basis of economic benefit.
- Establish guidelines linked to the broader road network strategy, which indicates those parts of the Network on which current levels of maintenance could be increased or decreased.
- Identify technical guidelines that will indicate appropriate Intervention Levels and standards of treatments.
- Review maintenance practices to deliver projects on time, at cost and with appropriate quality.
- Assist regions in developing maintenance programs to provide the best economic return on investment and supporting industry requirements.

- Identify changes in maintenance funding allocations to local areas and the employment implications which result from these changes, having considerations to the Queensland Charter for Local Content, the Queensland Code of Practice for the Building and Construction Industry and the Queensland Government Building and Construction Training Policy as applicable.
- Determine the measures necessary to minimise any short-term unemployment in rural communities by planning maintenance programs with the purpose of providing continued employment of maintenance personnel.
- Embrace initiatives to enhance the efficiency and effectiveness of cooperative maintenance ventures between the department and the RoadTek or Local Government.
- Maintain a safe road environment for road users.
- Integrate environmental considerations with economic analysis when selecting maintenance activities.

### **1.3 Vision statement for Sole Invitee RMPC delivery**

The vision statement for RMPC-Sole Invitee is:

*The department's vision is working actively and collaboratively with its suppliers to deliver projects that:*

- *achieve the quality desired within the desired timeframe*
- *meet value for money objectives based on the Queensland Procurement Policy and other government priorities*
- *are completed efficiently at least cost to suppliers and to Transport and Main Roads subject to the above, and*
- *provide adequate remuneration for the industry to be both sustainable and capable of enhancing its ability to improve the quality of its products and the efficiency of its performance.*

*It is fundamental to achievement of the above vision that the following principles of equitable project delivery are embraced:*

- *building of long term supplier networks which improve responsiveness and flexibility,*
- *reduction of non-productive disputes and litigation, and*
- *improved whole-of-life product quality.*

*Three major philosophical outlooks are at the core of the above principles as follows:*

- *trust and trustworthiness are central to all team relationships*
- *client commitment to equity between the parties and active support for continuous improvement – project benefits shared amongst the parties, and*
- *an approach to risk management, which focuses on reducing risk, not increasing it – risk is shared among the parties.'*

The visioning statement is consistent with the requirements under the RMPC, where there is a strong emphasis on partnering and the stewardship role of the Contractor. Delegation of the Network stewardship role to the Contractor, embodies the close working relationships expected between the

parties. To meet the desired future state espoused by the vision for RMPC-Sole Invitee works, behaviours and attitudes held by the parties to the works need to be aligned and appropriate.

Both parties to the Contract need to acknowledge and embrace the key principles of:

- risk allocation to the party best able to manage each identified risk
- issue resolution process in place that prevents disputes
- focus to be on project rather than individual goals
- open communication in place, respecting roles and responsibilities
- profit is a necessity for the supplier to remain viable and provide the expected services
- continuous improvement of processes to enhance efficiency and effectiveness
- strong and cooperative project relations that value a collaborative approach.

The scope of 'business agreement' documentation should be suitable and consistent with the value of trust characterising the relationship between the parties. The overriding focus is to reduce administration costs and to reduce impediments so more money can be spent where it is needed in maintaining the Network.

Consistent with this relational approach is the adoption of a 'one team' approach to the Contract. This could be expected to apply more with those RMPCs where RoadTek is the supplier. The adoption of a 'one team' approach is encouraged in:

- surveillance activities
- knowledge sharing
- joint resource sharing, program development, Network inspections and problem solving.

Duplication of roles during the Contract Period is to be avoided in the climate of goodwill and trust expected to operate under these RMPC-Sole Invitee arrangements.

#### **1.4 Defined terms in the RMPC documents**

The words used in the RMPC Contract Documents shall have the meanings set out here unless the context indicates otherwise. To ease the ongoing maintenance of RMPC documents, defined terms included in the RMPC General Conditions are not included in the manual.

<b>Term</b>	<b>Definition</b>
Maintenance Management System (MMS)	The Systematic Approach, supported by computer systems, to the Management of Road Maintenance cost effectively and efficiently.
Maintenance Needs Survey	A survey undertaken to identify the work required to maintain a Network to a specified standard for a nominated future period.
Maintenance Works Order	An order for the carrying out of a Maintenance Activity which is produced from the Contractor's Systematic Approach to the Management of Maintenance.
National Highway Network (NHN)/National Highways	That part of the Network comprising federally funded State Controlled Roads or parts of those roads.
Other State Controlled Network (OSCN)	That part of the Network excluding the National Highways.



Term	Definition
Response Time	The given time limit to complete a Maintenance Activity once the Upper Intervention Level for the related Defect has been reached.
Restoration Standard	The standard to which an Activity shall be completed as specified in the Maintenance Activity Standards in the Routine Maintenance Guidelines.
Road Maintenance Performance Contract (RMPC)	The agreement between the department and a Contractor where the Contractor is responsible for the Maintenance of a Network.
Road Reference System (RR)	The department's system that can be used to determine the location within the Road Network.
Routine Maintenance Guidelines (the Guidelines)	<p>The department's technical document that provides the technical guidance to deliver Routine Maintenance works on state-controlled road network, incorporating:</p> <ul style="list-style-type: none"> <li>• Defect Register</li> <li>• Intervention Level and Response Time (IL/RT) criteria</li> <li>• Maintenance Activity Standards</li> <li>• Other routine maintenance related technical information available at departmental website.</li> </ul>
Routine Maintenance Amount	The total sum of the Network Schedule(s).
Systematic Approach to the Management of Maintenance (SAMM)	The documented Systematic Approach used by the Contractor in complying with the requirements of the RMPC.
Work (or Works)	The physical works delivered on the Network which includes Routine Maintenance, Minor Works, Emergency Maintenance and any other variations.
Work Cycle	Repetitive cycle where all activities from the Road Inspection to the submission of Progress Claim are performed to deliver Maintenance.
Work Item	A Work Item is a component task of a Maintenance Activity.

## 2 RMPC process – key features

### 2.1 Roles of the parties

Both parties acknowledge that, notwithstanding the contractual nature of the Sole Invitee relationship, major importance and value is placed on goodwill, good faith and cooperation between the parties for the attainment of mutual goals. They acknowledge the intention to adopt a 'partnering-type approach' to administrating the contractual arrangements under Sole Invitee arrangements.

### 2.2 Partnering

It is expected that parties carrying out works under RMPC – Sole Invitee-type arrangements adopt a relational approach to their operations. More information related to Partnering can be found in Appendix A of the *Transport Infrastructure Project Delivery System Manual (TIPDS) Volume 1*. The document is published at:

<https://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TIPDS/Volume-1>

### **2.3 Partners in Government Agreement (State and local governments)**

*The Partners in Government Agreement (an agreement for the partnership and the relationship between the State Government and local government in Queensland) exists, which:*

- formalises a set of principles underpinning the relationship between the parties
- encourages positive and productive relations between the parties based on mutual respect and achieved through partnership and cooperation, and
- provides a process to implement other arrangements between the parties, covering specific services and functions.

### **2.4 The department's role**

The department's role under RMPC includes:

- owner of the Road Network
- administration of the Contract in accordance with Contract Conditions, including re-allocation of funds, consideration of variation applications, auditing of quality systems and provision of relevant available information
- assessment of progress Claims and authorising payment
- cooperation with the Contractor in its stewardship role, and
- assessment of the Contractor's performance.

### **2.5 The Contractor's roles**

The Contractor performs three key roles under RMPC. These are:

- Network steward
- Maintenance Manager and Supervisor, and
- Operations Contractor.

#### **2.5.1 Network steward**

In the context of the Contract, "stewardship principles" are a broad set of values, attitudes and behaviours required of the Contractor to effectively manage the Network on the Principal's behalf.

The Contractor, as the network steward and the department's local representative, must act professionally in the department's interest and must ensure:

- that maintenance funds are wisely invested and that the infrastructure asset is maintained in the best interests of the department
- that discretionary changes to the agreed Network Schedule(s) are sound and justifiable
- performing the Work under the Contract in the best interests of the Principal as the owner as well as the users of the Network
- being responsible and accountable for the outcomes resulting from the management of the Network
- working collaboratively with the Principal to deliver the Work under the Contract in a way tailored to best meet the Principal's evolving needs

- acting with integrity and transparency in the performance of the Work under the Contract and all other obligations under the Contract
- that Maintenance concerns are addressed at Contractor level and only referred to the department when necessary
- that timely advice of a high standard is provided to the department as necessary, and
- that the Network is in a safe condition for Road users.

The Network stewardship role of the Contractor does not involve owner-type functions, such as operating a pavement management system or designing rehabilitation works; however, the Contractor's ongoing inputs to future Work will be welcomed.

The Principal must ensure that the Principal's Representative and its staff or representatives involved in managing the Contract observe the Network stewardship principles.

The Contractor must ensure that its staff or representatives involved in the Contract observe the Network stewardship principles.

### **2.5.2 Maintenance Manager and Supervisor**

The Contractor, as the Maintenance Manager and Supervisor, must plan and manage Maintenance efficiently.

The Contractor is responsible for:

- ensuring a Systematic Approach to Management (identification, prioritisation, scheduling, planning and doing) of Maintenance and reporting to the Principal in accordance with the Contract
- accuracy of records
- adequacy of quality systems
- sound financial and contractual management.

### **2.5.3 Operations Contractor**

The Contractor is responsible for undertaking Maintenance efficiently and in accordance with quality procedures and the Quality Plan.

## **2.6 *Emphasis on planning***

### **2.6.1 General**

Under the RMPC arrangements, there is a clear focus on the Contractor knowing what is to be undertaken as the most important Work, and then planning its operations so Work is completed in the most cost effective and efficient way.

### **2.6.2 Planning prior to Contract Period (by the department and Contractor)**

Prior to the commencement of each Contract Period, a realistic Schedule of Routine Maintenance Work must be agreed. It is recommended that both the Contractor and the department jointly inspect all roads on the Network to determine the type and quantities of Maintenance required for the following Contract Period. This process is called the Joint Maintenance Requirements Assessment (JMRA) and more details on JMRA can be found in the Routine Maintenance Guidelines.

The indicative Network Schedule Total(s) should reflect the intent of the road network strategy and the output of the JMRA.

The Contract may also include:

- Network Schedule(s) – generally preferred.
- Schedules for individual road sections.
- Schedules for remote Works or Works in close proximity to the Contractor's depot.
- Schedules for specific Maintenance Activities where economy of scale considerations provide best value.
- Any combination of these as agreed with the department.

If both parties agreed to establish a contract for 24 months, then the Contractor will have to submit yearly Network Schedules based on the allocated funding. The type of Maintenance Activities and quantities can be modified after the first year (subject to JMRA being done in the beginning of the second year).

### **2.6.3 Planning during the Contract Period**

The Contractor needs to plan the Maintenance operations to maximise the efficiency of field operations. The RMPC requires Work to be identified and planned in advance and performed using a systematic approach.

In addition to JMRA inspections, the Contractor and the department should jointly inspect Roads in the Network on a regular basis throughout the Contract Period to monitor the performance of assets on the Network.

## **2.7 Systematic Approach to the Management of Maintenance**

### **2.7.1 General**

The Contractor shall adopt a Systematic Approach to the Management of Maintenance (SAMM) i.e. any system which is quality assured and complies with the generic processes outlined in Clauses 2.7.2 to 2.7.3.

The Contractor is strongly recommended to utilise a propriety Maintenance Management System (MMS) as recommended by the Department.

### **2.7.2 System procedures**

#### **Identification of Maintenance in advance**

Outstanding Maintenance needs, including exact location, shall be identified before Defects have reached the Upper Intervention Level. The Contractor is required to record details of Maintenance Work into the 'Defect log', once the Defect Initial Intervention Level is reached, to assist in work planning.

The process of Work identification shall be based on the IL/RT criteria. Sometime maintenance requirement will vary due to local issues and such works can be captured by using "Ordered Work" corporate priority group in IL/RT criteria.

To keep this process manageable, it is preferable that the Contractor aggregates Work into reasonable packages of Work and estimates resources necessary to perform those Maintenance Activities while still in the field.

A schedule of routine inspections shall be included in the Contractor's Quality Plan and the Contractor must carry out inspections as agreed. All remaining defects (Backlog) are to be revisited during the next inspection cycle in order to determine the right priority in accordance with IL/RT criteria. All inspection reports are to be retained by the Contractor and make them available to the Principal upon request.

### **Planning and prioritising of Maintenance**

The Contractor shall do their best to plan and prioritise Work in advance to achieve operational efficiencies. The Contractor is to maintain a prioritised Forward List of Work to demonstrate tangibly that Works are being prioritised.

It is not mandatory for Defects to be recorded with the Maintenance Activity in the prioritised Forward List of Work. Where Defects are recorded, they will be prioritised having regard to the IL/RT priority requirement.

When scheduled, Work shall be documented on Works orders. A Work order may contain multiple Defects, but not multiple Activities.

Work on adjoining LG Roads are not to be included in the RMPC Works order.

Copies of the Forward List of Work and Works orders are to be retained for audit by the department.

### **Undertaking Maintenance**

All Maintenance must be undertaken to appropriate standards, including compliance with the Maintenance Activity Standards included in the Contractor's Quality Plan.

The Contractor is required to be at least third-party quality accredited or have completed form C6089 and have a quality system for the performance of Maintenance, with Quality Plans, including the procedures to undertake Maintenance.

The Contractor must prepare its Quality plan in accordance with Routine Maintenance Guidelines and this manual.

The use of the department's Road Reference (RR) system is mandatory. The level of detail required will be at the discretion of the department. A copy of the RR conventions is included at Appendix 1 of this manual.

### **Recording completed Maintenance**

All Work performed, including its location, is to be captured and recorded. Where Work is carried out without a Works order being available in advance, a Works order is to be completed retrospectively, to capture a record of all completed work.

Where the Work actually performed differs from that scheduled on the Works order, the as-completed Works order is to be prepared and submitted to show the Work actually performed. All completed Activities must be located using the RR system. The level of detail required will be at the discretion of the department.

Works that are unable to be completed due to time or budget constraints, for example, are to be listed in a backlog for future consideration for the Forward List of Works.

The Contractor needs to retain records for at least five years.

## **Reporting completed Maintenance**

All completed Maintenance Works, including the locations, should be the subject of regular reports in the system outputs to allow Network and Contract performance monitoring to be undertaken. The level of detail required will be at the discretion of the department.

### **2.7.3 System outputs**

The SAMM must produce outputs of:

- Network inspection reports
- Forward List of Works – refer Clause 2.7.2
- Work Orders – refer Clause 2.7.2
- Record of completed Activities
- Monthly progress Claims including:
  - signed Form C6096
  - Form C6097 (mandatory requirement) or details of completed Activities in an electronic format (mandatory requirement)
  - Form C6098 and variations (as required by the department).
- Completed, updated programmed expenditure report (as required by the department)
- Backlog Report
- Minor Works, including itemised Minor Works Schedules
- Emergency Maintenance, including completed relevant Schedules
- Progress Reports prepared regularly (every three months or as otherwise directed by the department). Unsatisfactory or unclear Progress Reports may result in a formal progress meeting.

## **2.8 Financial management**

### **2.8.1 Discretionary management of expenditures**

The Contractor, as the Network steward, is to make many of the day-to-day decisions which would previously have been referred to the department and has a responsibility to manage the varying Maintenance needs and priorities of its Network over the Contract Period. This includes actively maintaining expenditure within the Network Schedule Total(s).

To help the Contractor manage these constraints, payment will be made on a Network and/or individual Schedule basis as determined locally. The Contractor has flexibility to vary the agreed quantity of each Maintenance Activity and/or individual Schedule total, where multiple Schedules are used, by  $\pm 20$  per cent (or any other figure as determined locally by the department).

Beyond the locally agreed discretionary level, prior authorisation from the department will be required. The department may:

- re-allocate funds from some other Maintenance Activity in the Schedule(s), retaining the original Network Schedule Total(s)
- varying Activity quantities outside the discretionary limits but maintaining the agreed Network Schedule Total(s)
- approve the Work as a variation to the Contract
- not approve the Work.

On a cautionary note, the department's delegation of the Network maintenance management role to the Contractor should not be seen by the Contractor as an opportunity to undertake more profitable activities at the expense of higher priority, less profitable activities. The Contractor is to act in the best interests of the owner of the asset. The department may audit the Contractor's performance in this area.

The Contractor must advise the department as soon as possible if a financial loss is anticipated under the Contract.

### **2.8.2 Variations**

Variations to the Contract involving a change to the Total Contract Amount, including providing additional funds, are at the department's discretion and apply in a limited number of situations (such variations may involve changes to scheduled rates and/or lump sums):

- quality changes to scheduled Activities
- nominated additional Activities (not in the Schedules)
- nominated new or additional Minor Works items
- Emergency Maintenance
- omission or decrease in Work
- defective work accepted by the department at a reduced cost
- public notification of significant traffic changes (if ordered by the Principal)
- alterations of Public Utility Plant or ancillary Works and encroachments.

### **2.8.3 Progress Claims**

While progress Claims will be made on a monthly basis (or other agreed period), consideration will be given in hardship cases only for interim payments to be made to the Contractor.

Claims are to be on a Schedule of rates basis for quantities actually completed during the claim period, except for lump sum Activities which are to be claimed on a pro rata basis, and Provisional Sum Activities which are to be claimed on an agreed quotation basis.

## **2.9 Initiation of Work**

### **2.9.1 Intervention Level / Response Time**

All routine maintenance defects are to be logged once the defect has reached the Initial Intervention Level and Maintenance is to be undertaken before the Defect reaches the Upper Intervention Level.

There may be instances outside the norm where, in some locations on the Network, Maintenance may not be able to undertake due to lack of funding or other reasons, before the Upper Intervention Level is reached.

The Response Time for carrying out a Maintenance Activity on each individual road within the Network, after the relevant Upper Intervention Level is reached, shall be as set out in the Guidelines.

It may be appropriate for the Upper Intervention Levels of one Road to differ from that of another Road within the same Network because of the road category as given in the IL/RT criteria.

If a defect becomes hazardous to road users as per hazardous defects identification methodology indicated in the Guidelines, then such defect must be actioned within the given timeframe.

### **2.9.2 Department initiation**

The department may direct the Contractor to carry out scheduled Maintenance Activities, at specific locations within nominated time limits, as ordered Work. Rates / lump sums for such Work may be increased if warranted and approved by the department.

## **3 Key contractual elements**

### **3.1 Type of Contract**

#### **3.1.1 General**

RMPC can be categorised by:

- the duration of the Contract
- the composition of the Network.

#### **3.1.2 Duration**

There are two different aspects of duration:

- Unless agreed in writing by the parties, there is a fixed Contract Period of up to 24 months, corresponding to two financial years. The fixed Contract Period should not exceed 24 months.
- The department guarantees to renew the RMPC for a period of up to one year (the Guaranteed Renewal Period), provided the Contractor performs satisfactorily and achieves agreed performance targets.

Either party may withdraw from the agreement without cause by giving the appropriate notice:

- the department – one year, or
- the Contractor – one year.

Grounds for earlier termination or modification to the agreement period would include:

- by mutual agreement
- fraud, maladministration or gross misconduct by either party (immediate termination)
- failure by the Contractor to attain agreed productivity targets (possible termination of the Contract at the end of the Contract Period)
- failure by either party to abide by the conditions of the Contract (possible termination), or



- unacceptable performance by the Contractor (possible termination of the Contract at the end of the Contract Period).

### **3.1.3 Composition**

The Network for the Contract Period will generally comprise those roads maintained by the Contractor under previous arrangements; however, the Network may be subject to minor redistribution by the department.

The composition of the Network can only be changed for subsequent Contract Periods where at least 12 months' notice is given to the Contractor, such that, unless otherwise agreed, those changes will apply from the first day of the following Contract Period.

Changes to the Network cannot be made during a Contract Period except where the parties agree.

### **3.1.4 Extent of changes**

For other than Australian Government-influenced changes to National Highways, any deletions from the Network must not be such as to reduce significantly the extent of maintenance to be carried out by the Contractor.

## **3.2 Work included under RMPC**

### **3.2.1 Routine Maintenance**

RMPC is predominantly an arrangement for carrying out Routine Maintenance on the Network.

Routine Maintenance Activities are listed in the department's Routine Maintenance Guidelines. Wherever possible, Activities included in RMPC Schedules should ensure that the agreements remain predominately output-based. See Clause 4.1 regarding monitoring of Works on an output basis.

The department will, in the case of Routine Maintenance, determine, as appropriate, indicative Network Schedule Total(s) for:

- the National Highway Network
- the Other State-Controlled Network.

as well as discretionary percentage limits that apply to each Maintenance Activity (on a Network basis) and/or individual Schedule totals where multiple Road Schedules are used. The Contractor, in carrying out its various roles, will be required to adapt to the changing Maintenance needs of the Network by varying the various Network Activity quantities and/or individual Schedule totals, so not to exceed the relevant Network Schedule Total(s). Changes outside this discretion require the department's approval.

### **3.2.2 Emergency Maintenance**

The RMPC will also include Emergency Maintenance. The Contractor must advise the department no later than the morning of the next working day of Emergency Maintenance involving fatalities.

The estimated expenditure of the Emergency Maintenance is to be advised to the Principal once known, so that any effect on the agreed Network total funding can be determined.

There are two elements of Emergency Maintenance.

### **'Make Safe' Work**

This Work is to be performed immediately by the Contractor when the emergency occurs. The department must be notified as soon as possible after the emergency situation arises. The claim for the Work can be included in the next progress claim and the department will treat that part of the claim as a variation.

In general, there will be some provisional amount within RMPC to pay for Emergency Maintenance Activities, listed under Maintenance Activity Numbers 450 and 452. The department may allocate a reasonable amount based on previous years expenditure to manage emergency maintenance efficiently. Works stemming from an emergency call out will need to be approved by the Principal. If approved, the Works will be funded on an as-required basis and priced by reference to existing Activity scheduled rates, standing offers or daywork schedules unless otherwise agreed.

### **Substantial further Work**

After making the Network condition safe, the Contractor shall notify the department for any further Work and seek approval prior to undertaking.

#### **3.2.3 Minor Works (applicable to Contractors with sole invitee status)**

For Minor Works to be included under the conditions of the RMPC, such Works must have an estimated annual aggregate amount of \$500,000 or less for each Contract. Only Contractors which have been assessed with Sole Invitee status will be able to be included for Minor Works with RMPC Works. This provision simply provides a further option to facilitate efficient Contract Documents and does not remove or override the assessment of Sole Invitee delivery under the policy statement.

The Contractor and the department will agree on the quantities, rates and lump sums to complete the Works and the relevant design and construction standards, including any drawings and Specifications.

The Minor Works should also be given a separate job number so that accounting of the value of this Work can be undertaken.

#### **3.2.4 Dayworks**

Daywork Schedules include rates which may be used for payment of completed unscheduled Activities, Emergency Maintenance or other agreed work. Clause 7 Variations of the General Conditions sets out where daywork rates may apply.

#### **3.2.5 Provisional Sums**

Where Activity quantities are difficult to estimate and pay on a unit rate or a lump sum pro rata basis, because of the unpredictable nature of the Work, the parties may agree to use a Provisional Sum in the Network Schedules where permitted (Attachment 3 of the Guidelines indicates those Activities that may be subject to a Provisional Sum). These Provisional Sums may be subject to discretionary changes by the Contractor.

### **3.3 Liability for non-performance of Maintenance**

The law relating to non-feasance (that is, not liable for damages for negligence for failing to carry out road maintenance) was changed as a result of the High Court decision made in *Brodie v Singleton Shire Council*. Australian states and territories have responded to this landmark case in differing ways through individual legislation and amendments to Acts.

In Queensland, the situation is:

- The *Civil Liability Act 2003* (Qld) (the Act) amends the law concerning the liability of road authorities.
- In particular, one provision of the Act (Section 37), in effect, partly overrules the High Court decision of *Brodie v Singleton Shire Council* and partially returns the law to the former 'non feasance' principle.
- The Act applies to both personal injury and property damage.
- The Act also acknowledges the limited resources available to public authorities, such as the Department of Transport and Main Roads – see Section 35 of the Act.
- Notwithstanding the Act, RMPCs, with their obligations between the department as Principal and the Contractor, take effect in their own terms. RMPCs contain a series of indemnities between the department and Contractors that impose obligations on each party and which depend on each case.

The department and Contractors should remain vigilant in performing their duties under RMPCs and maximise the use of the limited resources available to them.

Districts should be aware that RMPCs contain indemnities between the parties for liability arising out of non-performance of maintenance of an RMPC. Indemnities flow both ways under the RMPC – some in favour of the department as Principal and some in favour of the Contractor.

Risks, insurance requirements (including public liability) and indemnities are covered in Clause 8 of the General Conditions. Clause 8 provides that the Contractor shall indemnify the Principal for loss and damage (including costs), whether for property damage or personal injury, arising out of the performance of the Contract by the Contractor. The Contractor's liability is reduced to the extent that an act or omission of the Principal contributed to such loss.

Clause 8 also contains an indemnity given by the Principal in favour of the Contractor.

Under this Clause, provided the Contractor is fulfilling his inspection and recording obligations, the risks associated with non-performance of Maintenance for Defects that were:

- unknown to the Contractor, or
- known to the Contractor and below the Upper Intervention Level and not a hazardous defect at the time of inspection, or
- known to the Contractor and exceeded the Upper Intervention Level, but where the Contractor fulfilled its obligations under the Contract by prioritising and delivering works as per IL/RT or formally seeking a reallocation.

Then will be with the department. . In addition, where the Contractor has performed its obligations in accordance with the Maintenance Activity Standards, then the risks will be with the department.

The indemnity given by the Principal to the Contractor does not cover the situations where:

- the Contractor is negligent in carrying out any work, or
- the Contractor failed to identify any Defect which should have been identified as part of the stewardship role, or
- the Contractor failed to carry out inspections as agreed in the Contractor's Quality Plan, or

- the Contractor knows of the Defect, but fails to remedy the Defect within the times prescribed under the Contract or approved Maintenance Activities Schedule

nor does it cover any legal costs that the Contractor may incur in responding to these negligence Claims.

The best protection against liability for a Contractor carrying out Maintenance is:

- to have demonstrated procedures for the identification of Defects in accordance with IL/RT criteria and the scheduling of Maintenance Activities to remedy the Defects.
- to have appropriate Maintenance Activity Standards
- to have appropriate MMS in practice
- to adhere to these procedures and standards.

Under no circumstances should identification or planning of Maintenance Activities be carried out on an ad hoc basis.

### **3.4 Quality, safety and environmental requirements**

The Contractor is required to have a third-party quality system or have completed Form C6089. For compliance with the RMPC, Quality Plans may be added to the system or guide.

Specific Quality Plans for the RMPC are required for:

- a SAMM
- maintenance operations
- safety, including traffic management
- environmental management.

For operational quality, the Contractor may build on the department's Activity Standards which are included in the Guidelines.

The emphasis of the safety plan for RMPC revolves around the control and consequences of traffic in the vicinity of Maintenance operations and the provisions of the current *Work Health and Safety Act 2011* (Qld). The Contractor shall guide traffic safely past the Work in accordance with traffic guidance schemes based on the department's *Manual of Uniform Traffic Control Devices*. The department may require the Contractor to notify the public of significant changes to normal traffic in advance. The Contractor shall advise the department of any notifiable incident under the *Work Health and Safety Act 2011* (Qld) as detailed in Clause 9 of the General Conditions.

The department is committed to implementation of best practice environmental management. The current *Environmental Protection Act 1994* (Qld) states that all members of the community are subject to a general environmental duty of care to take all reasonable and practical measures to prevent or minimise environmental harm.

To ensure the department complies with all relevant legal obligations at each Work Site, the Contractor shall be responsible for environmental management associated with the Works. This includes:

- obtaining all licences, permits and approvals (not already obtained by the Principal) and to pay all fees due as required by all relevant Acts, Regulations and local laws from the appropriate authorities and departments

- preparation of an Environmental Management Plan (Maintenance) (EMP (Maintenance) in accordance with the requirements set out under Clause 10.5 General Conditions
- implementation of the EMP (Maintenance), including at least one internal environmental audit during the Contract.

Contractors with an accredited environmental management system may submit their EMP (Maintenance) in a format compatible with their existing system.

The Contractor must notify the Principal's Representative of an environmental incident that occurs during the performance of the Work under the Contract as soon as practicable. This does not negate the Contractor's responsibility for reporting the incident to the administering Authority as per the *Environmental Protection Act 1994* (Qld).

### **3.5 Other significant features**

#### **3.5.1 Insurance**

Where the Contractor is a Local Government (LG) , the Contractor is required to arrange its own insurance under RMPC. This includes:

- workers' compensation
- insurance of the Works (including Minor Works if required)
- public liability, and
- professional indemnity (where Minor Works incorporating design is included).

Where the Contractor is RoadTek, the Queensland Government policy of self-insurance applies, except that workers' compensation coverage is required.

#### **3.5.2 Rework**

The Contractor may use its discretion as a first approach to undertake a low-cost attempt to remedy a Defect. If that approach results in premature failure and requires a subsequent high cost thorough solution, then the department, where it agrees that this approach was an attempt to achieve best value for the department, will include the costs of both approaches within the Network Schedules Total(s).

Both Activities must previously be included in the Schedule or the parties may agree in advance to such an approach.

### **3.6 Dispute resolution**

It is expected that any disputes that may arise under RMPC will be settled promptly:

- where the Contractor is a LG — in accordance with the current Partners in Government Agreement between the state government and Local Government Association of Queensland
- where the Contractor is RoadTek — in accordance with the dispute resolution process as set out in a mutual obligations agreement between local delegates of the RoadTek and the district.

## **4 The RMPC process**

### **4.1 General**

There are a number of processes involved with forming the Contract and undertaking Works under RMPC arrangements. The processes are depicted in Figure 4.1.1-A, which show the steps involved with forming the RMPC SAMM.

#### **4.1.1 Planning prior to agreement**

##### **Budget and Intervention Levels**

The department will advise the Contractor of an indicative Network Schedule Total(s) based on:

- JMRA and other Maintenance Needs assessments
- Actual funding strategy
- previous Maintenance Needs Surveys
- the current departmental Road Network strategy
- planned future programmed Maintenance, rehabilitation and reconstruction Works
- current backlog list for the Network
- historical levels of Maintenance expenditure.

Intervention Level and Response Time parameters in the IL/RT must not be negotiated to maintain the network with the constrained budget. Instead defect prioritisation as per IL/RT criteria should be carried out once all the Defects have been captured in inspection cycles. Cash flow forecast based on JMRA and historical maintenance delivery is critically important to deliver consistent maintenance throughout the year.

##### **Joint Maintenance Requirements Assessment**

This assessment is a joint departmental/Contractor assessment of the Network for the purpose of determining the extent of the Maintenance Activities for the forthcoming Contract Period.

The JMRA will identify, for each road on the Network:

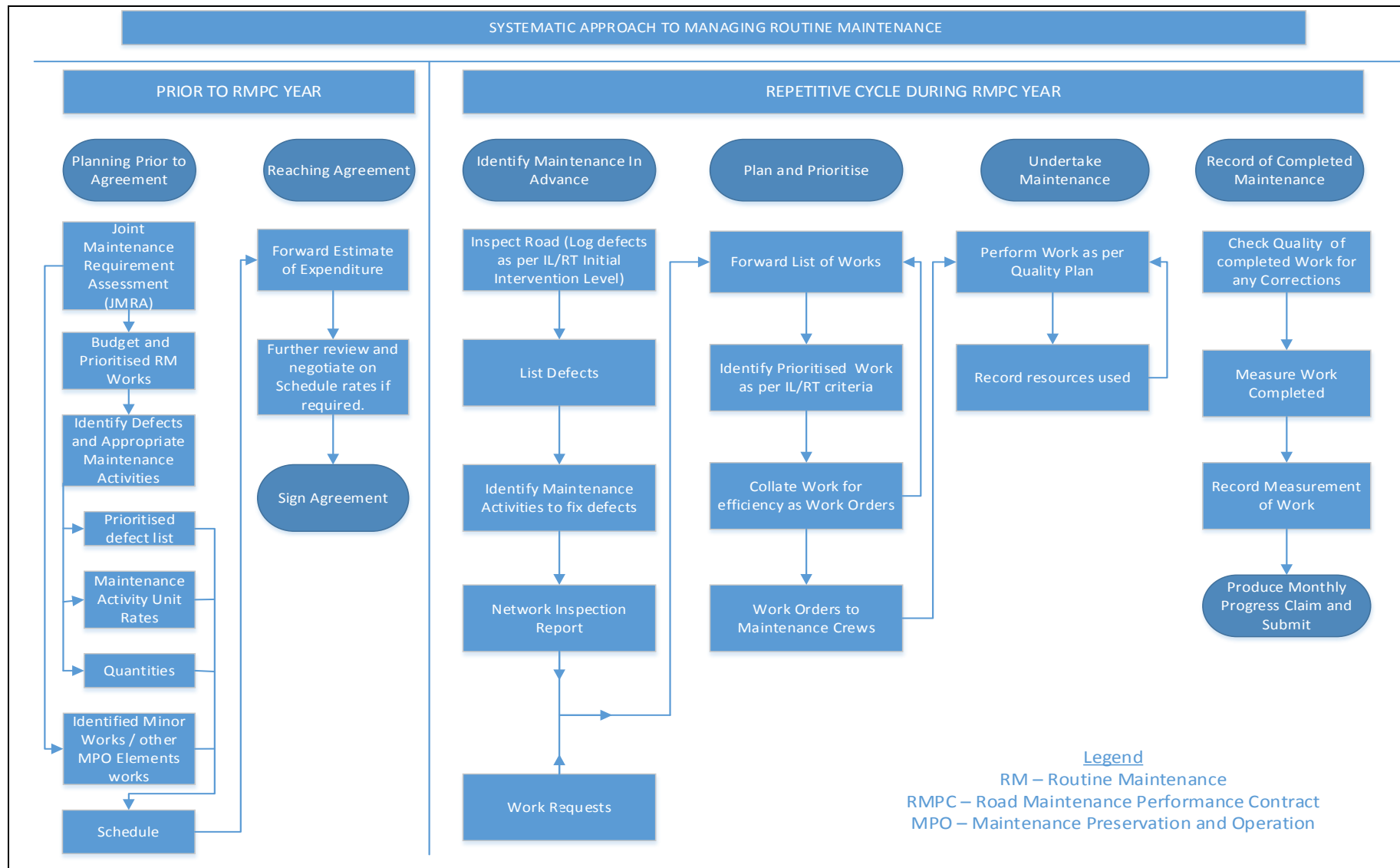
- the specific Maintenance Activity required
- the priority for Works
- approximate Work quantities for Maintenance Activities and any Minor Works necessary.

The value of the Work identified and agreed during the JMRA is to match the indicative Network Schedule Total(s) that reflect the intent of the road network strategy. However, work delivery during the RMPC cycles should be performed based on the identified priority works. Refer to the Guidelines for further information about the JMRA.

**Figure 4.1.1-A – Management of RMPC processes (example for a 12-month Contract Period)**

	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun		
<b>1. Summary of Contract Period / Negotiations</b>	<b>Pre-Agreement Process (April-June) and Reaching Agreement by the end of June</b>			RMPC CONTRACT PERIOD 1 July to 30 June										
													<b>Pre-Agreement Process (April-June) and Reaching Agreement by the end of June</b>	Next RMPC Contract Period 1 July to 30 June
<b>2. Recommended Progress Report Periods</b>	Progress Period #1 (July-Sept)			Progress Period #2 (Oct-Dec)			Progress Period #3 (Jan-Mar)			Progress Period #4 (Apr-Jun)				
				<b>X</b>	Progress Report #1		<b>X</b>	Progress Report #2		<b>X</b>	Progress Report #3		<b>X</b>	Progress Report #4
	Notes: (1) X indicates that the Contractor must prepare and present Progress Reports to the Principal no later than 2 weeks after the completion of the relevant Progress Period. (2) The Contractor will be given two weeks' notice of any Progress Meetings to consider unsatisfactory / unclear Progress Reports. Such meetings are at the Principal's discretion.													
<b>3. Recommended Contract Review Periods / Meetings</b>	Contract Review Period A (July-Dec)						^Contract Review Meeting must be held before mid-February							
	Note: Performance Report (Form C6092) and RMPC Performance Assessment Template to be completed prior to each Contract Review Meeting						Notes (1) ^ indicates Contract Review Meeting						Contract Review Period B (Jan-June)	

**Figure 4.1.1-B – System approach to management of maintenance**





### **Identify Defects, relative priorities, Maintenance Activities, Maintenance Activity rates and quantities**

It can be expected that the needs of the Network established during the JMRA process will vary from the indicative Network budget figure. During the planning phase, an iterative process based on the work priority, is carried out in reaching agreement to a conforming Network Schedule(s).

The iterative process for reaching agreement has the aim of identifying Defects, Maintenance Activities, Maintenance Activity quantities, unit rates, lump sums and Provisional sums to ensure the indicative Network Schedule Total(s) are not exceeded.

The use of work priority in balancing Network needs to available budget is detailed in Clause 4.1.2.

### **Schedule**

The outcome of the iterative process is agreement by the department and Contractor to Network Schedule(s) and Intervention Level Schedules to apply for the forthcoming Contract Period.

#### **4.1.2 Reaching agreement**

##### **Sign agreement**

After agreement on the contents of the Network Schedule(s), there are a number of documents to be completed by both parties to create the agreement.

##### **Form C6084.1**

It should be noted that the Schedules included in the Contract can be based on a number of criteria. These are Network Schedule(s) – generally identified, individual road sections, Works remote or in close proximity to the Contractor's depot, specific Maintenance Activities where economy of scale considerations provide best value and any combination of these approaches, as agreed with the department. A separate amount for GST payable by the department should be shown separately from the Total Contract Amount.

##### **Form C6084.2**

Prior to completion of this Schedule, it is necessary for the Contractor and the department to agree on the proposed discretionary limits for various Maintenance Activities and/or individual Schedule totals where multiple Schedules are used.

##### **Form C6095**

It should be noted that, the Upper Intervention Levels contained in the Guidelines are the approved Intervention Levels for the Contract.

##### **Form C6084.3**

Minor Works up to an estimated annual aggregate amount of \$500,000 for each Contract may only be included in the RMPC where the Contractor is also a Sole Invitee.

It should be noted that the process for reaching agreement is similar to that used for Sole Invitee capital works projects such as Transport Infrastructure Contract – Sole Invitee (TIC-SI) or Minor Infrastructure Contract – Sole Invitee (MIC-SI).

### **Forms C6086 and C6087**

All items of labour, plant, equipment and materials likely to be used in managing and carrying out the works under the Contract should be included by the Contractor, together with associated rates agreed with the department.

### **Supplementary conditions of Contract**

These conditions will generally be initiated by the department to cater for local circumstances associated with the Contract.

### **Ratification notice**

When required by either party, these notices should be received by the other party before the start of the Contract Period to allow time for authorisation of financial programs and the authorisation by appropriate staff or local government.

### **Form C6094**

This agreement sets out in writing all matters agreed by the parties during the 'reaching agreement' stage. Some matters could be hours and Days of work and information required by the department for inclusion in Progress Reports. Commencement of work may be conditional on ratification of the agreement by either party using a ratification notice.

### **Forward estimate of expenditure**

Once the agreement is signed, the department is required to forward an estimate of expenditure for the Contract.

#### **4.1.3 Identify Maintenance in advance**

##### **Survey Road Network and Network inspection reports**

The Contractor shall use a systematic approach to manage Routine Maintenance as required under the Contract; Maintenance works, including Defect, Maintenance Activity, location- and son on, should be identified through regular Network inspections. The Contractor is required under RMPC to include, in the management Quality Plan, its procedures for the identification of Work in advance.

Details from these Network inspections are to be detailed in Network inspection reports. These reports must be kept up-to-date to demonstrate compliance with the Quality Plan and to provide any information on the Network the department requires.

##### **List Defects and identify Activities to fix**

The Guidelines list Defects and associated Maintenance Activity combinations to repair the Defect.

In addition, the Guidelines also list the initial Intervention Levels for recording works into the Forward List of Works and the Upper Intervention Levels which Defect is to be repaired before reaching it. If a Defect was unable to fix before reaching the Upper Intervention Level due to valid reason then the Defect should be fixed within the Response Time.

Clause 4.1.2 details the use of Intervention Levels for recording of Works.

##### **Routine Maintenance Performance Assessment and Strategic Analysis**

The department will require information to assess routine maintenance element performance and effectiveness of revised Intervention Level and Response Time (IL/RT) criteria contained within the

Guidelines. This will require inspection details, Defect information and defect rectification details from the Contractor to be collected annually or as required during the contract period.

### **Work requests**

In addition to Works being identified through Road Network Surveys, outstanding Works will be reported to the Contractor through Work requests.

These requests may be raised by the department based on, the public or a road user complaint or other means. The requests need to be investigated by the Contractor and included in the prioritised Forward List of Works if justified. Such work requests are also considered as “Ordered Work” Defects and get corporate priority 2 for rectification.

#### **4.1.4 Plan and prioritise**

##### **Forward list of Works, identify priority Works and collate Work as Work orders**

It is a mandatory requirement that, to the maximum extent possible, prioritised Works are planned in advance. The Forward List of Work is used for this purpose. The Contractor is required to maintain a current Forward List of Works for inspection by the department at any time.

Defects should be recorded in the Forward List of Works, and be prioritised having regard to the Defect Scoring methodology explained in the IL/RT criteria in the Guidelines.

It is not mandatory to record Defects with the Maintenance Activity into the Forward List of Works; however, if not recorded, the Contractor’s quality system should clearly demonstrate the way Works are delivered in the field.

An up-to-date Forward List of Works for the Network also allows the Contractor to plan Works to achieve operational efficiencies.

The Contractor uses the prioritised Forward List of Works to schedule Works onto Works orders for action by Work crews. In scheduling the prioritised Work to Work orders, the Contractor should aim to achieve operational efficiencies such as reducing the proportion of travelling time in the day, economy of scale considerations, use of specialised Work crews and timing of preventative type maintenance.

#### **4.1.5 Undertake Maintenance**

##### **Perform Work as per Quality Plan and record resources used**

The Contractor undertakes the prioritised work detailed on the Works orders in accordance with Activity Work procedures included in the Contractor’s Quality Plan. These Work procedures may be based on the Guidelines.

The Contractor, in carrying out Works, is also required to observe the procedures contained in the safety and environmental management plans for the Works, as well as recording resources used to provide actual costs of the Works for internal performance assessment.

The quality system requirements for undertaking RMPC Works are set out in Clause 10 of the C6083 General Conditions.

## **Provisional Sums**

The procedure for using Provisional Sum Activities shall be:

- Where Provisional Sums are permitted, the parties agree, at the time of the RMPC negotiation, those Maintenance Activities that are difficult to estimate and pay on a lump sum or unit rate basis in view of the unpredictable nature of the Work.
- For the Maintenance Activities identified, a Provisional Sum allowance is made in the Schedule for the Work, based on records of past Works and field inspections.
- When Work is required during the year for these Maintenance Activities, the Contractor provides a quotation to the department for approval to carry out the Work.
- Work undertaken by the Contractor is reimbursed as per the agreed quotation as part of the progress claim for that period.
- Quotations for the Work may be based on RMPC Network Schedule rates, standing offer rates or daywork rates.

The department may provide blanket approval for Provisional Sum work undertaken on a repetitive basis during the term of the Contract or for Provisional Sum work of relatively low dollar value where:

- the risks associated with not obtaining a quotation are less than the cost of administering before approval
- the department does not wish to delay the supplier unnecessarily for each component of work
- dissections of costs incurred are provided with each progress claim.

## **Monitoring of Works on an output basis**

The levels of unit rate/lump sum and daywork / Provisional Sum expenditure will be monitored each year to assess the extent to which RMPCs facilitate delivery on an outputs basis. As a guide, it is expected that no more than 10 per cent of the value of any individual Contract will be delivered on a daywork / Provisional Sum basis.

### **4.1.6 Record of completed Works**

#### **Measure and record Work completed and produce Progress Claim**

The Contractor is required to measure the extent of all Work undertaken in terms of the Maintenance Activity unit of measure. It is in the Contractor's interest to measure the Work done accurately as payment will be based on these records. It is possible that audit surveillance checks will be undertaken by the department on the reasonableness of work claimed for reimbursement.

Progress Claims are normally made on a monthly basis unless otherwise agreed by the department. Claims are on a Schedule of rates basis for quantities completed during the claim period, except for lump sum Maintenance Activities (which are claimed on a pro rata basis) and Provisional Sum Maintenance Activities (which are claimed on an agreed quotation basis).

Details of the progress claim format and supporting documentation required to accompany the claim is set out in Clause 5 of the C6083 General Conditions. In addition to details of work done under the various Schedules, a completed revised program expenditure flow for each Schedule, with progress against each Network and/or individual Schedules, dayworks and variations, may be required if directed by the department.

Progress payment should be made by the department within 28 Days of receipt of the claim. Progress payments are the subject of Clause 5.6 of the C6083 General Conditions.

## **4.2 Administration of the Contract**

### **4.2.1 Contractor**

The major aspect of Contract administration by the Contractor revolves around discretionary changes to the Network or individual Schedule quantities, within the nominated percentage limits, to reflect the needs of the Network. When a discretionary change is made, the Contractor does not need to refer the matter to the department, but any changes must not exceed the Network Schedule Total(s).

When unexpected situations arise, or there is no scope for further discretionary changes, the Contractor must obtain the department's approval before undertaking the work.

The Contractor is required to present regular (every three months or any period as determined by the department) Progress Reports to the department that highlight stewardship, management, financial or operational aspects for the progress period. The department may require a formal progress meeting to discuss the content of the report.

### **4.2.2 The department**

Under the RMPC's performance approach, it is necessary for the department to certify progress claims, as well as provide detailed assessment of the Contractor's performance at the Contract Review Meetings, which is to be held at a time determined in the initial Contract negotiation.

### **4.2.3 Additional Activities**

The Contractor must advise the department as soon as possible of any recommendation to add or change Maintenance Activities to the existing list of Maintenance Activity types (as listed in the chapter 5 of the Guidelines).

## **4.3 Renegotiation**

For other than the initial Contract Period, there will be sufficient information available for:

- the Contractor to demonstrate its productivity achievements
- the department to assess the Contractor's performance.

in May / June, prior to each new RMPC Contract begins.

Such information is fundamental to the formation of each new RMPC, especially the Guaranteed Renewal Period. The formal reviews provide a forum for demonstrating the partnering and stewardship features of RMPCs.

## **5 Productivity and performance**

### **5.1 General**

Sole Invitee RMPCs are required to demonstrate value for money and be competitive with the value that could be achieved via open tender.

Contract productivity and performance needs to be considered from a number of perspectives. Value is multidimensional as reflected in the Queensland Procurement Policy and the reporting requirements in the *Transport Infrastructure Act 1994* (Qld), which indicates the need to demonstrate efficiency and effectiveness and to achieve best quality work for the department's Network.

In the past, emphasis was placed on productivity improvement and other benchmark performance assessment. These measures are still used, but have been modified. Productivity improvement is still used, but other outcomes that need to be understood and measured are safety, Work effectiveness, Road user satisfaction and administrative efficiency. The achievement and improvement of these outcomes is facilitated by a cooperative and relational approach by the parties to the Contract. Improved performance should be driven by the setting of challenging, but achievable, targets underpinned by an effective benchmarking system, which facilitates improvement in all the identified areas.

## **5.2 Performance assessment methodology**

The performance assessment methodology includes productivity gains measurement and the assessment of the Contract performance, based on rating key performance indicators (KPIs). Two instruments that measure performance of RMPCs are:

- productivity improvement, measured annually and expressed in terms of dollar gains and percentage improvement (this is a continuation of the current approach)
- performance assessment, based on qualitative and quantitative assessments of KPIs.

The objective of performance assessment methodology is to provide a basis to assess overall Contract performance and establish benchmarks so efficient practices and systems are adopted.

The methodology requires districts to form their own targets while measuring achievement against state-wide targets. In return, Contracts will be measured against each other to indicate a snapshot of the current compliance within RMPCs which can be used in determining future performance targets.

Performance assessment measures have a twofold purpose in quantifying ongoing productivity improvement and to rate Contract performance in broader contractual and community outcomes which the department requires from these Contracts.

Measuring performance assessment quantifies subjective and objective outputs of Sole Invitee RMPCs through the management of risks associated by this type of Contract delivery. Outputs measured are 'productivity', 'workplace health and safety', 'Road user relationship', and 'delivery system management'. Delivery system management summarises contractual obligations and measures the management of stewardship, process management and operational systems.

### **5.2.1 Determining key performance indicators**

The main steps in determining KPIs for Routine Maintenance may involve:

#### **Pre-assessment**

- identify scope of KPI assessment (choose important or expensive processes, such as the planning and ordering of works or pavement repairs)
- understand existing processes, levels of performance and data attributes for comparison
- establish the team members representing those involved in the process
- organise a KPI partner (could consider a best practice operator in a related field).

### **Assessment**

- visit Site of KPI partner, discuss issues and collect data
- compare processes, identify differences in process and performance, and establish best practice
- assess cause / effect link between differences in process and the performance variation
- review process to eliminate redundant steps, reduce resource wastage and, where possible, reduce time taken.

### **Post-assessment**

- document recommendations for change and consult as agreed with partner
- gain necessary approvals and implement change
- monitor performance
- repeat KPI process at regular intervals.

### **5.2.2 Performance initiatives**

Performance improvements are not demonstrated solely by a reduction in rates, but can be achieved through improvements to the life of the finished works by changing work practices and by improving standards, Work quality and Response Times. Improvements are also gained through changes in Network geometry and packaging of Works.

The examples of performance initiatives listed are provided to encourage and exchange information, technology and skills that promote the adoption of better processes and achieve improvement in Contract delivery. It is suggested the Contractor and the department discuss productivity initiatives.

#### **Improved Work practices**

- rationalisation of plant / personnel
- use of mobile traffic lights to control traffic
- multi-skilling and attention to a number of activities in the same gang trip – for example, litter retrieval, mowing and illegal sign collection by the same crew
- use of specialist Contractors where appropriate
- delegation of detailed Works programming to gangs
- adoption of night work on heavily trafficked roads.

#### **New and innovative products**

- material substitution and better use of materials – for example, stabilisation to improve substandard materials, use of improved surfacings, use of natural materials where appropriate, substitution with long-life alternatives
- phasing out solvent-based paint and converting equipment to accept water-based paint
- use of longer-lasting traffic control products – for example, rubber kerbstones
- use of herbicides, where appropriate, as an alternative to hand mowing / chipping
- use of Thormajoint on bridge repairs with life expectancy of 15 years.

### **Use of technology**

- better use of plant and use of improved plant – for example, Flocon machines, Matthews Spreaders, asphalt pavers, front deck mowers, Jetpatchers, and mechanical sign post driving systems
- systematic approach to collect Defects information, including use of computer logged Defects in conjunction with improved Maintenance Management Systems
- Better measurement, using more accurate material-measuring equipment, such as load cells, and devices for measuring the area of grass slashed.

### **Improved project management**

- reduced Intervention Levels and Response Times through improved operation frequency
- quality assurance – implementation of quality recommendations from the department's inspector
- improved Works programming – for example, activities to suit seasons
- combining RMPC Works with council works
- enhanced cost control through use of the new list of Work and Maintenance Activity payment types.

### **Geometry of Network**

- better balance of Network between Contractors
- redistribution of Maintenance Activities among Contractors
- reassessment of responsibilities (Road Network, boundaries of responsibility)
- agreements (for example, aesthetic Maintenance Agreement for grass cutting)
- elimination of repetitive work – for example, landscaping / concreting of medians.

### **Packaging of Works**

- bulking up of Works to reduce establishment costs
- cooperative arrangements between Contractors (share resources, Works, staff)
- combining ordinary Maintenance Works with the Transport Infrastructure Contract – Sole Invitee (TIC-SI) or other Works programs
- use of community groups to save litter collection costs ('Adopt-a-Highway')
- reducing Work – for example, by replacing grass median strips with low maintenance vegetation.

### **Technology and skills transfer**

- undertake benchmarking, seminars and workshops to share ideas for increased productivity
- adoption of partnering approach (as opposed to adversarial)
- active participation in regular reviews, audits and discussions to ensure that implementation of new procedures are progressing, and to share suggestions for improvements.



### 5.2.3 Supplier benchmarking for key performance indicators

Comparisons of performance of the RMPC suppliers is required for two reasons:

- the process of negotiating rates can take account of the relative performance of Contractors and their peers
- reviews of productivity targets for subsequent years can consider the efficiency of the Contractor and the best value obtained from the Contractor's peers.

The supplier benchmarking process involves assessment at two levels:

- at the local level — where districts compare rates of neighbouring suppliers during the negotiation process
- at the state level — where statistical analysis is proposed.

The state-wide analysis procedure initially undertakes multi-factor regression of Contract rates for 19 of the major Activities of the 80 plus Contracts signed each year. This process involved the normalisation of the components of Work Activities which contribute to differences or variability in rates and which are not directly related to productivity. This may include:

- economy of scale (surrogate – quantity of an Activity)
- travel time (surrogate – the mean travel distance from the depot to Contract Roads)
- traffic control (surrogate – the mean Average Annual Daily Traffic (AADT) for all Contract Roads)
- materials and costs (surrogate – the location of the Contract in Queensland).

The resulting relationship may be used to predict typical or average rates for that Activity for each Contract.

## 5.3 Rating and scoring calculations of Contractors

### 5.3.1 Productivity gains

The calculation of productivity gains is determined by comparing unit rates of recurring activities from the current Contract year to its previous Contract year, excluding lump sum, daywork and Provisional Sum Activities. So the comparison is analytically correct, previous years' rates are inflated to align with today's value using the Australian Bureau of Statistics' Road and Bridge Cost Index (RBCI).

The inflation factor used is calculated by:

$$\text{Inflation factor} = \text{Current RBCI} / \text{Previous RBCI}$$

where the RBCI value is represented as the December value for each year. This reflects costs mid-term in a Contract and is available prior to Contract renewal. This value is supplied by the Transport System Asset Management Unit in Transport and Main Roads prior to any analysis being undertaken.

The productivity gain delivered by rate reductions for unit rate Contract Activities can be calculated using the following formula:

$$\text{Gains}_{\text{Activity}} = \text{Quantity}_{\text{current}} \times [(\text{Unit Rate}_{\text{previous}} \times \text{Inflation factor}) - \text{Unit Rate}_{\text{current}}]$$

This is to be done for each unit rate Activity that is used in both Contract years. From this calculation, productivity is achieved by:

$$\text{Productivity (\%)} = [(\sum \text{Gains}_{\text{Activity}}) / (\text{Contract cost}_{\text{current}})] \times 100$$

The total Contract cost for the later year is required to gauge the savings achieved if the previous year's unit rates had been used during the current Contract year.

Districts are required to document the results obtained from this equation as it is a requirement for auditing purposes and will be used in the 'Performance Area – Productivity' in the performance assessment template.

To assist districts with calculating productivity, a revised worksheet has been created in the performance assessment file. To ensure ease of use, all calculations have been formulated into the spreadsheet. Users are required to insert data consisting of the Contract number, Contract amount (\$), Contract target (% gain), Activity numbers, previous (years) unit rate, current (years) unit rate and the current (years) quantity. From this information, the productivity gain or loss will be automatically calculated.

### **5.3.2 Work health and safety**

Safety in the workplace is the department's number one priority for its employees, Contractors and the public. As such, work health and safety is an important element in ensuring that best practice is achieved in Maintenance delivery.

For mandatory criteria, all assessments in work health and safety require the Contractor to conform to all current *Work Health and Safety legislations*, including:

- address appropriate systems for recording incidents and accidents
- ensure appropriate actions are in place to prevent or rectify work health and safety issues
- incorporate a traffic guidance scheme.

For the local criteria, the Principal's Representative and Contractor are able to include issues that cascade from mandatory questions with the level of detail required to ensure local issues are delivered and addressed.

### **5.3.3 Road user relationship**

Public consultation and feedback is the area to be measured under Road user relationship. This includes the measurement of systems in place to collect public communications and to undertake any actions deemed necessary to achieve a positive outcome in the mandatory criteria.

Road user satisfaction and public perception are important for the RMPC, due to the potential for political influence at the local level and increased road user understanding of sound Maintenance delivery. It is essential that measuring feedback and responding to information supplied is a key principle in reporting on Contract compliance.

Contract-specific assessment criteria should be included for assessment as deemed relevant by both the Principal's Representative and Contractor at the beginning of the Contract.

### **5.3.4 Delivery system management**

Assessment of Contractors in this key performance area is completed in three parts: stewardship, process and operational. Each of these areas relate to how Contracts are delivered, with emphasis on the management requirements of RMPC to ensure Maintenance Works are undertaken within the appropriate guidelines and Work methods.

### **5.3.5 Stewardship**

Network stewardship of the Contract (see Clause 2.4 of this manual) requires the Contractor to always act professionally in the best interests of the department, such that funds are wisely invested and the asset is maintained accordingly. Assessment of stewardship requires the Contractor to indicate its ability to accept and act on its requirements as detailed in the Contract Documents. Knowledge of the responsibilities associated with the Contractor role, along with evidence of record keeping and reporting, are criteria to be addressed.

### **5.3.6 Process**

RMPC requires a systematic approach to manage a Contract, as detailed in Clause 4 of this manual. As such, details stipulating the mandatory quality practice requirements are to be addressed, based on their existence and implementation. Assessments primarily focus on whether the Contractor has adhered to all process requirements, including any supporting documentation. This also includes record keeping, which details process driven activities (such as detailing non-conforming materials) through systems developed for undertaking such tasks.

### **5.3.7 Operational**

Measures for operational compliance are guided around criteria that enable the transfer of captured knowledge to be shared between parties to the Contract. Applications capturing the results of Maintenance operation, such as the use of data collection systems, control of documentation and details of audits and inspections, make up the assessment critique.

## **5.4 Rating and scoring calculations of Principal's Representative**

The assessment of the Principal's Representative (the department) is a new concept which has not been undertaken previously for RMPCs. Questions in the Principal's Representative section complement a selection of those in the Contractor's section which need to be actioned or noted to achieve compliance (for example, Contractor supplied progress Claims in the agreed timeframe – Principal's Representative finalised payment of Claims in agreed timeframe). In this manner, any non-compliance in the Contract can be tracked to where the responsibility resides and comments are included to justify an action.

## **5.5 Performance assessment template scoring**

KPIs are intended to indicate how well the Contract is performing against nominated compliances. The ratings consist of two sections: 'mandatory assessment' and 'local assessment'. The new system has removed the previous scoring system (of score criteria between 1 and 5) and replaced it with a less subjective method of assessment. Each assessment criterion is listed as a question, with only a 'Yes' or 'No' answer. The final tally for each criterion, including mandatory and local assessments, reflects on the level of compliance achieved for each key performance area by the Contract out of a score of 10. The calculation is as follows:

$$\text{KPI score} = [(\text{count of 'Yes' assessment ratings}) / (\text{number of all assessment criteria})] \times 10$$

The mandatory assessment criteria are taken from the *Quality System Requirements – Evidence Guide*, as *Table 1 ISO 9001 Elements for RMPC Works – Evidence Guide*. The value achieved at the end of assessment indicates the level of compliance to the mandatory requirements for the Contract and highlights the level of risk to the department for each Contract. For state-wide comparisons and reporting, the compliance to the mandatory assessment will be used. This will highlight the level of risk that is being incurred by the department or by Contractors.

The local assessment is a combination of selected mandatory assessments, with the inclusion of any local specific questions. All mandatory questions to be used in the analysis are to be checked in the 'tick-box' located in the green column. This is to indicate which questions have been selected for the local assessment. Those not ticked imply the Principal's Representative acknowledges that suppliers are not able to comply with those topics and, therefore, liability issues as a result of non-compliance to these are to be borne by the department.

The purpose of developing criterion such as this is an indicator that the localised issues, which have greater importance to the delivery of Maintenance, can be the focus for the Contract team and delivery based on practical assessment can be monitored.

All assessment questions must be derived and agreed before the Contract commences.

All Contracts must undertake a minimum of two assessments (mid and end of Contract year) per Contract; however, additional assessments can be undertaken during the Contract year if required.

#### **5.6 Reporting on performance assessment**

Performance of each RMPC Sole Invitee Contract must be assessed regularly to ensure compliance with the intent of RMPCs — ongoing satisfactory performance by the Contractor. Performance assessment methodology forms constitute the tool to be used. Results achieved from the reports will enable local managers and Contract parties to understand the risks associated with the level of compliance and to decide how to manage this risk so liabilities lie with the party best able to manage the risk. A risk and consequence profile assessment matrix is being developed, with the aim to assist Principal's Representatives and Contractors in understanding the risk from the level of compliance and to provide a mechanism to assist in managing their Contracts at a local level.

Performance assessments should be undertaken at least twice per year. Principal's Representatives are encouraged to use this monitoring tool more frequently where the risk is considered high.

**Appendix 1: Road Reference system (RR) conventions**

**Road referencing system**

**Lane and Carriageway Numbering**

DEFINITION OF LANE AND CARRIAGEWAY NUMBERS (AS VIEWED IN THE GAZETIED DIRECTION)	
<p>LEGEND</p> <p>#</p> <p>CARRIAGEWAY NUMBER (#)</p> <p>LANE NUMBER</p> <p>(E) &amp; (U) ALWAYS SHOULDERS</p>	<p>Two Lane (No Median)</p> <p>Four Lane (No Median)</p> <p>Four Lane With Median (Concrete or Grassed)</p> <p>Eight Lane (No Median)</p> <p>Multi Lane With Service Roads</p>
Lane and Carriageway Numbering	

**Glossary of terms**

<b>Term</b>	<b>Meaning</b>
Carriageway	The part of a road section that conveys traffic on a single formation and is delineated into one or more lanes.
Carriageway Code	The code representing the allowable carriageway name(s) for a carriageway on a road section.
Lane	That part of a carriageway that conveys a single stream of traffic in the direction of gazettal or opposing it.
Lane Code	The code representing the allowable lane name(s) for a lane on a carriageway section. The lane code is an alphanumeric code which will never be repeated across a road section width. Numeric codes will be used for through-lanes. Alpha codes will be used for lanes other than "through" lanes, such as median strips, parking and turning lanes.
Major Culvert	<ul style="list-style-type: none"> <li>• metal culverts (steel and aluminium): <ul style="list-style-type: none"> <li>○ at least one barrel (cell) with span, height or diameter <math>\geq 1.2</math> m, or</li> </ul> </li> <li>• all other culverts: <ul style="list-style-type: none"> <li>○ pipes with at least one barrel (cell) with diameter <math>\geq 1.8</math> m, or</li> <li>○ rectangular/oval/arch culverts at least one barrel (cell) with span <math>&gt; 1.8</math> and height <math>&gt; 1.5</math> m.</li> <li>○ stock and pedestrian underpasses</li> </ul> </li> </ul> <p>(refer to structure definitions in Part 1 of the Structures Inspection Manual, which is published online at <a href="https://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/Structures-Inspection-Manual">https://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/Structures-Inspection-Manual</a>)</p>
Minor Culvert	All other culverts that do not meet the definition of major culvert (as above) or not identified as in high risk, are then classified as minor culverts
Permanent Reference Point (PRP)	A nine-character identifier historically used by the Department to reference the declared road network. Their usage is declining in favour of Reference Points, which have a code derived from the road number.
Reference Point	A convenient way of referencing or locating points on a road section. Reference points are commonly located at identifiable features, such as an intersection or bridge abutment. They are given a code that is usually allocated sequentially in the direction of the road. Reference points provide convenient points of known location, from which to locate other features or information (by measuring distance from the reference point).
Reference Point Code	The name or code given to a reference point. Reference Point Codes (RPC) enable the identification of known point on a road section. RPCs contain information including a name, textual description and a distance measured from the start of the road section.

<b>Term</b>	<b>Meaning</b>
Road Section	This is the gazetted road section within a major road. It always starts and ends on a permanent reference point. Larger roads are broken down into sections for easier data collection and reporting (especially when the road is in more than one district). A road section has a suffix (e.g. A, B, C, D) added to the ID code of the whole road to enable easy differentiation.
Thru Dist. (Through Distance)	The distance in kilometres from the beginning of a road section to the current point.

