



Road Management Plan

Version date: 17 September 2013

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Register of Public Roads (stand-alone document)

Revisions and Adoption Schedule

Document Control

Rev No	Date	Version / Changes
	Aug 2004	First Edition
	July 2009	Second Edition
3.00	25 Jun 2013	RMP Review as per S54(5) of Road Management Act 2004. <i>Amendments Summary:</i> <ul style="list-style-type: none">• Focus on operational activities. Strategic planning activities removed from RMP• Asset maintenance hierarchies defined, with corresponding inspection regime (section 4.3) and response priority (section 4.4.3)• Footpath at vehicle crossing included (section 2.4.4)• Carparks and nature strips excluded (section 2.3)• Changes to road defects tolerance intervention levels (section 4.4.1)• Inclusion of 'Force Majeure' clause (section 1.10)
3.01	11 Jul 2013	Initial Draft issued for Public Comment
3.02	17 Sep 2013	RMP 2013 Adopted by Council

1 INTRODUCTION

1.1 Legislation Applicable

The Road Management Act 2004 (the “Act”) has established a statutory framework for the management of public roads in Victoria. The Act, and any associated legislation as defined in the Act, applies to road authorities including the City of Yarra.

1.2 Meaning of Terms

Terms used in this Plan have the same meaning as the specific definitions included in the Act.

For the purposes of this plan the following terms shall be defined as:

“the Act”	means the Road Management Act 2004.
“the Plan”	means the Road Management Plan.
“Ancillary Area”	means an area designated as ancillary by Council and includes car parks and other like areas.
“the Council”	means the Yarra City Council.
“Defect”	is a localised failure in an asset, for example potholes in a road surface or a joint displacement in a concrete pathway.
“Defect Intervention Level”	is the extent of a defect above which may pose an unacceptable risk to users of that asset.
“Hazard”	is an event, defect, condition or substance, which has the potential to cause harm to the health and safety of persons in their use of road infrastructure.
“Kerb and Channel”	is considered to be road infrastructure and forms part of the roadway for the purposes of this Plan.
“Laneway”	is any narrow road, generally less than 6.1 metres in width, not being a municipal road, providing access to the rear of properties. Laneways can be constructed with bluestone pavers or the like or be unconstructed.
“Level of Service”	is the defined service quality for the road against which performance may be measured and relates to quality, quantity, reliability, responsiveness and cost.
“ Maintenance Category”	the nominated maintenance category for each road or footpath determined by Council according to an assessment of risk, taking into account factors such as road classification, road type and volume and type of traffic.
“Nature strip”	has the same meaning as Roadside
“Park Pathway”	paths in parks are provided to give pedestrian only access within the park.
“Shared Pathway”	pathways that are provided for shared use by pedestrians and cyclists
“Response Times”	is the time to make safe or repair defects, identified by inspections undertaken by Council officers, or defects notified by the public. Response Time is measured from the time the defect is identified by, or notified to, Council. The nominated response time is not precise with a 10% margin being allowable.
“Roadside”	means any land that is within the boundaries of a road (other than the shoulders of the road) which is not a roadway or a pathway and includes the land on which any vehicle crossing or pathway which connects from a roadway or pathway on a road to other land has been constructed.
“Routine Maintenance”	works that are beyond the scope of reactive maintenance, but are not Capital Works projects. Generally they can be described as works larger than routine maintenance that do not require a design to be completed and are seen as a method of rehabilitating infrastructure assets without

	the need for major capital works
“Reactive Maintenance”	the day-to-day work undertaken to keep assets operating at the required service levels. This includes pothole patching, minor repairs to footpath, kerb and channel, signs and street furniture.
“Service Agreement”	means the Service Agreement for Road Maintenance
“Crossover”	Means the vehicle crossing or access from back of kerb to property boundary including any section of footpath within the lateral limits of the crossing.
“Day”	in terms of response times a day is a business day excluding weekends and declared public holidays.

1.3 Role of Road Authority

Under Part 4, Division 5 of the Act, Council elected to make a Road Management Plan in accordance with the Code of Practice for Road Management Plans (16 September 2004).

The Act provides that Council as the road authority is to exercise its functions within an overall policy and budgetary context and must take into account the needs and expectations of the community and the resources available to meet them.

It is responsible for the development of the Road Management Plan and must ensure it manages the inspection, maintenance and repair of the road network within available funding levels to ensure that a safe and efficient road network is provided for use by members of the public.

1.4 Purpose of the Plan

The purpose of this Road Management Plan (the “Plan”) is to ensure Council has in place a plan that helps Council to achieve the following objectives –

1. Ensure that a safe and efficient network of municipal public roads is provided primarily for travel and transport.
2. Meet the statutory requirements of the Road Management Act, Road Management Regulations (the “Regulations”) and relevant Ministerial Code of Practice (the “Codes”). Purposes defined in section 50 of the Act are quoted below –

“The purposes of a road management plan are having regard to the principal object of road management and the works and infrastructure management principles –

(a) to establish a management system for the road management functions of a road authority which is based on policy and operational objectives and available resources; and

(b) to set the relevant standard in relation to the discharge of duties in the performance of those road management functions.”

3. Provide a structure that advances Council’s asset management practice in delivering a sustainable road transportation service that meets the needs and expectations of the community and other key stakeholders.
4. Adhere to good practice of achieving an appropriate level of statutory protection against civil liability claims under the Act.

1.5 How to achieve the Plan’s objectives

To achieve the above stated objectives, this Plan provides details in the following key management areas that are central to Council’s role as the road authority for municipal public roads –

- provide descriptions of the types of road and road-related infrastructure assets covered including assets not covered. The details are in section 2, Road Asset Description.
- set up a road and pathway hierarchy classification to facilitate the setting of performance standards. The details are in section 3, Road Infrastructure Hierarchy.

- set relevant performance standards to help with the discharge of Council's duties. The details are in Section 4, Performance Standards.
- set details of management system to be implemented to help with the discharge of Council's duties. (refer to section 5, Management System).

1.6 Key stakeholders

Key stakeholders who will be affected by this Road Management Plan in the City of Yarra include –

- The community - ratepayers, residents, business, industry, education.
- Road users such as pedestrians (including those with disabilities and the elderly), bicyclists, motorcyclists, public transport passengers and vehicle drivers and passengers.
- Transport service providers - transport operators, bus operators and service providers supporting the delivery of transport service.
- Tourists and visitors to the area (for recreation, sport, leisure and business, or on transit).
- Emergency authorities (Police, Fire, Ambulance, SES).
- Utilities agencies that use the road reserve for their infrastructure such as water, sewerage, drainage, gas, electricity, telephone, telecommunications, cable TV, pipeline and other like services under the authority of an Act of Victoria or the Commonwealth.
- Land and property developers and their respective consultants and contractors.
- Other road authorities such as VicRoads, neighbour Councils, DSE, Parks Victoria, Melbourne Water Corporation, etc.
- Special interest groups such as RACV, ratepayer associations, Chambers of Commerce, industry-representing bodies and like community groups.
- Council as the responsible road authority.
- State & Federal Government that periodically provide support funding to assist with management of the network.

1.7 Duty of road users

Whilst Council has certain duties and responsibilities, this Plan is predicated on the basis that the road users also have certain obligations and responsibilities to drive safely according to the prevailing conditions, to have regard to the rights of other road users, the community and infrastructure managers, and to avoid damaging infrastructure.

Section 138 of the Road Management Act 2004 sets out the obligations of road users:

- road users are required to travel safely having regard to the road, weather and traffic conditions, and avoiding unreasonable risks to other road users;
- individuals wishing to make a claim against a road authority in relation to the performance of road management functions to give notice of the incident within 30 days; and
- management of private roads is not covered by this legislation.

Road users have additional duties and responsibilities under the Roads and Council Land Local Law (2012) of the City of Yarra.

In particular there are provisions relating to the protection of environment, public safety, management of traffic and roads, control of vehicles and animals on roads, and secondary activities on roads.

A copy of the Roads and Council Land Local Law is available from the municipal offices and on Council's web site at www.yarracity.vic.gov.au.

1.8 Relationship with Council Plan and Asset Management Policy

The Council Plan sets out Council's medium-term direction and the outcomes sought by Councillors for their four-year term of office. It details Council's strategic objectives, outlining some of the values, policy and research behind each objective.

The Asset Management Policy and its associated strategy framework has a direct link to the Council Plan through its budgetary and planning processes.

1.9 Relationship with Budget

Council's annual adopted Budget and Capital Works Program specifies the planning parameters by which the Road Management Plan is carried out. The annual Budget has been developed within an overall financial planning framework that guides Council in identifying community needs and expectations over the short, medium and long term. In preparing the annual Budget, funding requirements for each year are linked with the objectives contained in the Council Plan.

In relation to road and road-related infrastructure assets that provide road transport service, Council recognises the importance of balancing appropriate performance standards with what the communities able to afford and sustain. In balancing the funding level for the inspection, maintenance, repairs, upkeep, rehabilitation and renewal of road and road-related infrastructure assets, Council gives regards to the following key considerations –

- its role and obligations under the Road Management Act 2004;
- achievement of statutory protection against civil liability claims;
- preservation of existing assets in an appropriate and safe working condition;
- ability to acquire additional infrastructure assets to serve new growth;
- market constraints in manpower, plant and equipment, building materials and contractors; and
- budget / financial constraints.

The performance standards set in Section 4 of this Plan reflects such balance.

1.10 Force Majeure

Council will make every endeavour to meet all aspects of its Road Management Plan. However in the event of natural disasters and events but not limited to, fires, and floods, as well as human factors, but not limited to lack of Council staff or suitably qualified contractors, because of Section 83 of the Victorian Wrongs Act, 1958, as amended, Council reserves the right to suspend compliance with its Plan.

In the event that the Chief Executive Officer of Council, has to, pursuant to Section 83 of the said Act, consider the limited financial resources of Council and its other conflicting priorities, meaning Council's Plan cannot be met, they will write to Council's Officer in charge of its Plan and inform them that some, or all of the timeframes and responses in Council's Plan, are to be suspended.

Once the events beyond the control of Council have abated, or if the events have partly abated, Council's Chief Executive Officer will write to Council's Officer responsible for Council's Plan and inform them which parts of Council's Plan are to be reactivated and when.

1.11 Availability of Plan and Associated Documents

This Plan and associated documents is available at the following locations and may be viewed, free of charge, by the public during the hours of 8.30am to 5.00pm each working day:

Yarra City Council

Fitzroy Town Hall

Corner Napier Street and Moor Street, Fitzroy Vic. 3065

Customer Service Centre Phone 9205 5555

The Plan may also be viewed in PDF format on the Council website
[http://www.yarracity.vic.gov.au/Services/Infrastructure/Road Management](http://www.yarracity.vic.gov.au/Services/Infrastructure/Road%20Management).

2 ROAD ASSET DESCRIPTION

This section provides the details of road infrastructure and road-related infrastructure assets that are being covered under this Road Management Plan. It also outlines assets not covered under this Plan.

2.1 Overview

Yarra's 19.5 square kilometres include the suburbs of Abbotsford, Burnley, Clifton Hill, Collingwood, Cremorne, Fitzroy, North Carlton, North Fitzroy, Princes Hill and Richmond. Parts of Alphington and Fairfield - south of Heidelberg Road - are also included in Yarra.

The City has a population of approximately 79,500; which is expected to reach 102,900 by 2030.

For the financial year 2012/2013, the local road network comprises –

- 225 km of public roads (sealed and unsealed roads);
- 85 km of laneways;
- 308 km of kerb and channel;
- 491 km of pathways (constructed footpath, bicycle path and shared path); and
- 7 foot-bridges (4 co-owned by Darebin City Council).

For the year ended 30 June 2012, the total Replacement Cost is estimated at \$ 705.7 million.

2.2 Assets covered

The road and road-related infrastructure assets covered in this Plan are those that exist within the roads nominated in the Register of Public Roads, and they are –

- trafficable roads including features such as traffic lane, on-road bicycle lane, parking lane and service road;
- constructed laneways (the maintenance of unmade laneways that are not reasonably required for public access is not covered by this Plan)
- road shoulder and verge;
- roundabouts, traffic or splitter islands, central median, outer separator;
- pedestrian bridges and major culverts;
- kerb and channel;
- pathways – constructed footpath, bicycle path within the road reserves, and park pathways within *significant* parklands and shared trails;
- pedestrian operated signals, pedestrian crossings and school crossings;
- traffic signals, signs, guide posts, traffic safety barriers and guard rails;
- road line markings, raised reflective pavement marker (cat eyes);
- street lighting infrastructure for *decorative* schemes where Council is the asset owner; and
- roadside Water Sensitive Urban Design features.

2.3 Assets not covered

This Plan does not cover the following assets –

- road and road-related infrastructure assets that are the responsibilities of other road authorities, utilities and/or other infrastructure managers (e.g. VicRoads, Department of Sustainability and Environment, Parks Victoria, Melbourne Water Corporation, and the like);
- road, road-related and non-road infrastructure assets (e.g. gas pipes, water pipes, sewerage pipes, storm-water pipes, pits, electricity poles, cables, tram wires, rail infrastructure, bus shelters, public telephones, mail boxes, roadside furniture and fences erected by utilities) owned, managed and/or

operated by private organisations, on private land or which interface on public land or within road reserves (e.g. shopping centres, educational institutions, body corporate subdivisions and the like);

- single property stormwater drains that are constructed within the reserve from the property boundary to a discharge outlet in the kerb or into the drain ;
- sub-divisional roads under construction and prior to the date the road became a public road;
- vehicle crossovers & driveways for that portion of a vehicle crossing, *other than the footpath*, located between the carriageway and the property boundary (see section 2.4.4);
- roads and laneways that have not been constructed to Council's design standards or by a responsible road authority (e.g. an unconstructed track such as a vehicle or motorcycle trodden roadway);
- minor parks pathways or pathways that have not been constructed by a responsible road authority, e.g. an unconstructed pathway such as a foot (human or animal) trodden pathway, including unmade pathways owned by Council;
- nature strips & infill areas which are those residual areas between the edge of the road or back of the kerb and the property boundary not occupied by the pathway and private road crossings. These are normally sown to grass with responsibility for maintenance of the grass and any depressions generally being left to the adjoining property owner
- off-street car parks – constructed or unconstructed areas;
- rail crossings and associated structures (bridges);
- street lighting (Standard) – timber and concrete power poles;
- temporary road signs used in road works;
- any other road, road-related or non-road infrastructure asset not listed in the Register of Public Roads.

Regardless of its maintenance obligations, Council has a duty of care and will as far as practicable notify the relevant utility or authority where a defect related to third party asset has been identified. Council may also serve a notice on a property owner to have defects repaired within a given period.

2.4 Demarcation and Agreements with other Authorities

Demarcations refer to the boundaries of a public road (points of transfer) where the City of Yarra assumes responsibility, or relinquishes responsibility, for its care and maintenance.

The Code of Practice – 'Operational Responsibility for Public Roads' defines the limits of responsibility between road authorities for different parts or elements within the road reserve.

2.4.1 Freeways and Arterial Roads

Classification of a road as a freeway or an arterial road is declared by VicRoads in accordance with Section 14 of the Act. VicRoads is both the coordinating road authority and the responsible road authority for freeways and arterial roads.

Declared arterial road and freeways within the municipality are listed in Appendix 1.

VicRoads is responsible for the development and implementation of its own Road Management Plans for Freeways and Arterial Roads.

In the case of arterial roads VicRoads is responsible for the road pavement, kerb and channel, traffic signals, medians, 'easy access stop' raised pavement, some underground drainage and bike paths belonging to VicRoads.

Yarra City Council is responsible for Council owned assets contained within the area from the back of kerb to the building line and line-marking associated with parking bays.

The following figure illustrates the demarcation of responsibilities within VicRoads controlled arterial roads and council controlled local roads.

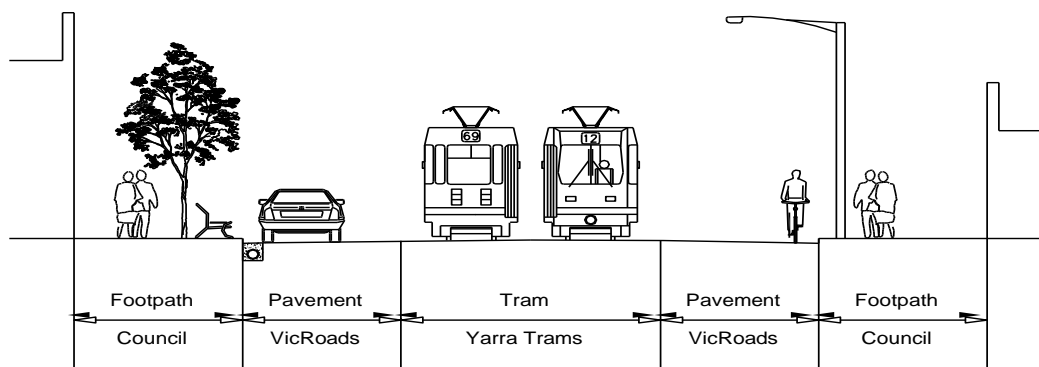


Figure 1 – Yarra Declared Arterial Road with Shared Responsibility

2.4.2 Local Roads with Tram Lines

Where tram tracks exist the Tram Operator is responsible for assets in the road reservation such as, tram tracks, yellow line marking, cat-eyes, overhead powerlines and shelters. Tram operators are also responsible for the tram track reserve area within 450mm each side of the outer track rails in road reserves including crib crossings installed to protect pedestrians crossing tram tracks.

Council is responsible for the road reserve outside these limits.

The following figure illustrates the demarcation of responsibilities between Council and Tram Operator.

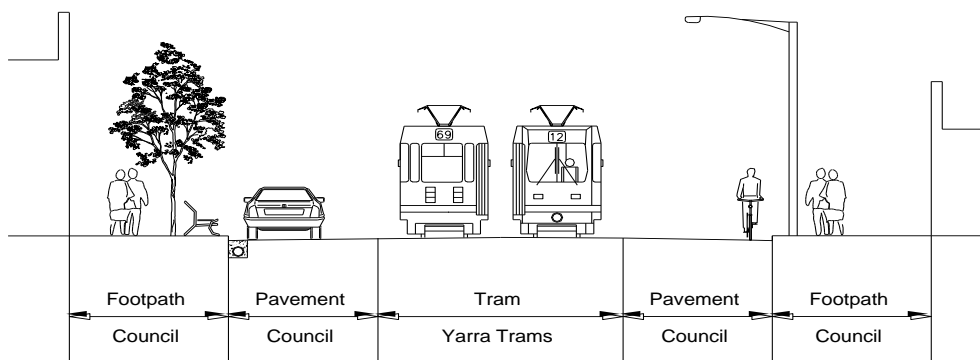


Figure 2 – Major Road with Shared Responsibility

2.4.3 Local Roads

Council will be responsible for all assets within local road reserve, subject to sections 2.2 and 2.3, as illustrated in the following figure.

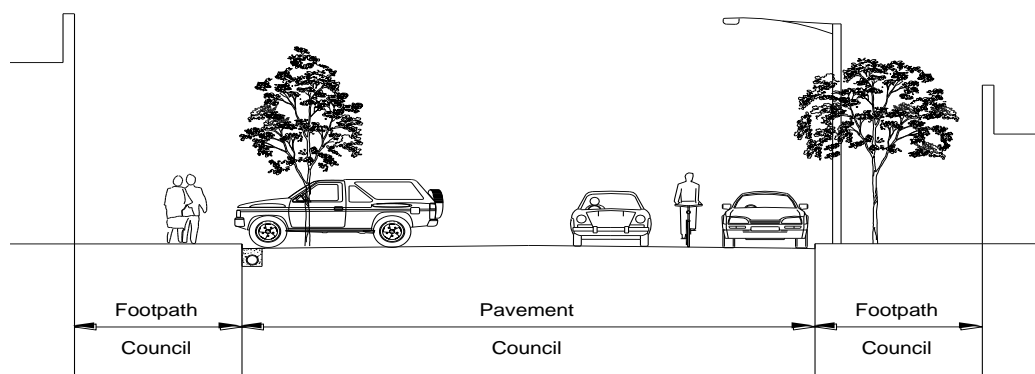


Figure 3 – Local Road with full Council Responsibility

2.4.4 Vehicle Crossings

Council is responsible for the inspection, maintenance and repair of certain public roads, including footpaths, within its municipal district. As such, Council requires a property owner to give it prior notification for work, such as vehicle crossings, within the road reserve and to obtain the necessary permits prior to the work being undertaken.

All work, including vehicle crossings, undertaken within the road reserve must be completed to Council's design standards and specifications.

While the construction and maintenance of vehicle crossings are the responsibility of the property owner (in accordance with Council's design standards and specifications), Council retains responsibility for the inspection, maintenance and repair of the footpath sections that traverse the crossings, as depicted in Figure 4 below.

In discharging that responsibility, Council may, pursuant to clause 12 of Schedule 10 to the Local Government ACT 1989, require a property owner to undertake specified works to maintain, repair or reconstruct that part of the footpath that traverses the vehicle crossing.

A requirement that is issued must be complied with to Council's design standards and specifications.

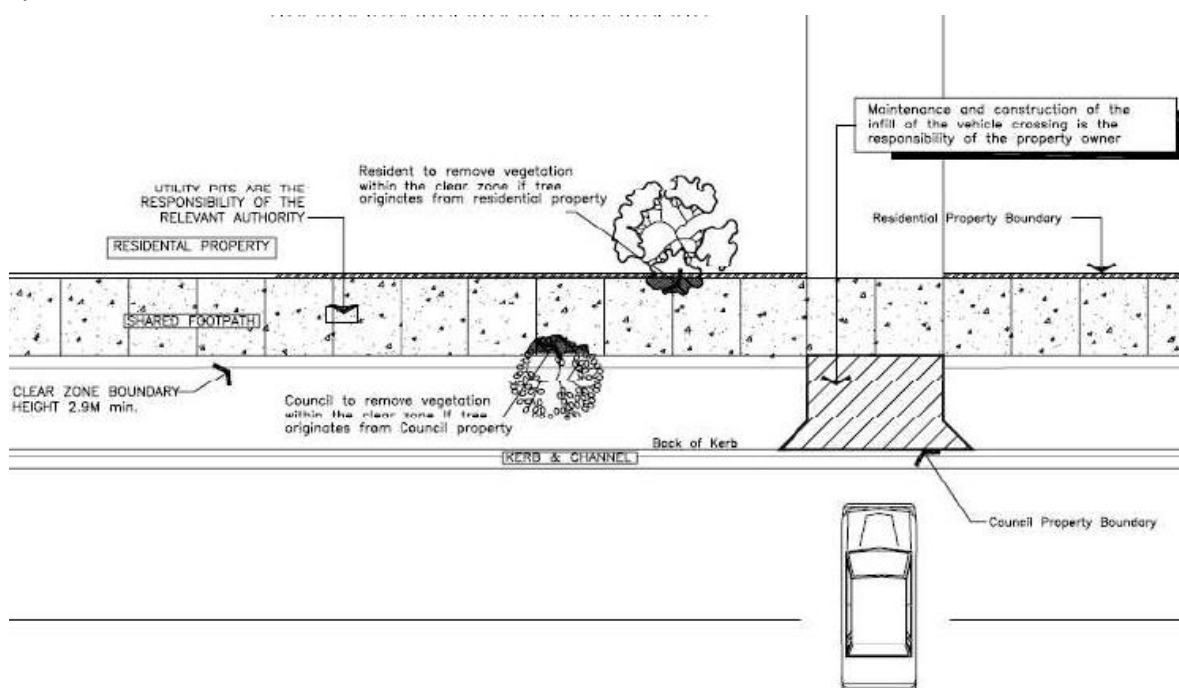


Figure 4 – Demarcation of Responsibility at Vehicle Crossing

2.4.5 Shared Roads

The City of Yarra shares boundaries with Melbourne, Moreland, Darebin, Banyule, Stonnington and Boroondara. Shared roads are those that may define boundaries with other municipalities. In most cases the adjoining municipalities are responsible for managing half of the road, depending on the boundary alignment.

The shared roads with adjoining municipalities are:

With Melbourne City Council

1. Bowen Crescent, Princes Hill (Park Street to Garton Street)
2. Garton Street, Princes Hill (Paterson Street to MacPherson Street)

With Moreland City Council

3. May Street, Fitzroy North (King Street to Ida Street)
4. Park Street, Princes Hill (Bowen Crescent to Wilson Street)

It is generally preferable for one of the abutting municipalities to undertake maintenance for a shared road, with the costs being appropriately shared.

Formalised agreements detailing the responsibilities for managing roads that are shared between Yarra and abutting Councils are currently being prepared as part of the development of this RMP.

2.4.6 Bridges

VicRoads is responsible for the management and maintenance of the bridges and underpasses along Arterial Roads. All railway line bridges that cross above roads, underpasses, and level crossings are the responsibility of and maintained by the Rail authority.

Bridges not maintained by the City of Yarra are listed in Appendix 2.

Some footbridges along shared boundaries along the creeks have a shared responsibility between neighbouring Councils.

The shared pedestrian bridges are:

With Boroondara City Council

1. Walmer Street bridge (over Yarra River), Clifton Hill

With Darebin City Council

2. Merri Path/Knott Reserve Bridge (over Merri Creek), Clifton Hill
3. Merri Path/Coulson Reserve Bridge at (over Merri Creek), Clifton Hill
4. Holden Street Bridge (over Merri Creek), Fitzroy North

Formalised agreements detailing the responsibilities for managing bridges that are shared between Yarra and abutting Councils are currently being prepared as part of the development of this RMP.

2.4.7 Public (Off-street) Car Parks

Car parks that the public has access to and Council is responsible for the management and enforcement provisions are excluded from the Road Management Plan as they are defined under the RM Act as “ancillary areas”.

2.4.8 Repair of Damaged Council Assets

Where a party other than Council has damaged a Council asset or road, that party shall be responsible for repairing the damage to ensure that it is safe and operates at the level it previously operated at or higher.

In particular where secondary damage has been caused to Councils assets such as subsidence from water damage at a location other than the specific site of the asset works or repairs, the damage must be repaired by the responsible party.

2.4.9 Codes of Practice and Agreements

Demarcation will generally be defined within the relevant Codes of Practice for various assets and responsible authorities. Where agreements are entered into with another road authority and responsibility is transferred, the following will apply;

- VicRoads controlled roads, in accordance with their own Road Management Plan.
- Service authorities in accordance with industry codes or as required by Council special conditions.

The following Codes, relevant at the date of adoption of this Plan, will be complied with by Council in so far as is required:

- Code of Practice for Operational Responsibility for Public Roads GG no s267, 17 December 2004
- Code of Practice for Road Management Plans GG nos201, 16 September 2004
- Code of Practice for Managing Utility and Road Infrastructure in Road Reserves GG nos268, 17 December 2004
- Code of Practice for Worksite Safety – Traffic Management GG nos276, 22 December 2004

2.5 Register of Public Roads

Council keeps a copy of the Register of Public Roads (the “Register”) in accordance with Section 19 of the Act. The Register is a stand-alone document titled “Yarra City Council – Register of Public Roads”. It is to be read in conjunction with the Road Management Plan.

The Register specifies all roads and road categories (including laneways) that Council will be responsible for maintaining and repairing.

The Register also defines the general demarcations between private assets and Council assets. Where the City of Yarra enters into an arrangement with another organisation to carry out works on other public roads, the responsibility of the City of Yarra is limited to the terms of that agreement.

The Register will be updated on a six-monthly basis if there are new additions and/or to effect other changes as necessary.

3 MAINTENANCE CATEGORY

3.1 Introduction

Pursuant to Section 19 of the Act, Council is the coordinating road authority for the roads as well as pathways and ancillary areas within the road reserves of those public roads, as specified in the "Register of Public Roads".

This section describes the road and pathway maintenance categories adopted in this Plan. The classifications assist in determining relevant performance standards (see section 4) for key maintenance areas such as inspection, maintenance, repairs and intervention levels. It also assists in other management activities such as allocating resources and specifying design and construction standards.

3.2 Road

All Council managed roads are classified as municipal roads in the Register of Public Roads.

Council had adopted, however, the following road maintenance categories for the purpose of setting the performance standards in terms of inspection, maintenance, intervention levels and repairs.

Traffic Type	Roads Included
Roads with major on-road bike lanes	<ul style="list-style-type: none"> Nicholson Street (Johnston St to Victoria Street), Abbotsford Gipps Street (Yarra River to Wellington St), Abbotsford Langridge Street (Smith St to Nicholson St), Abbotsford Ramsden St (Hoddle St to Capital city Trail), Clifton Hill Roseneath St (Hoddle St to Capital city Trail), Clifton Hill Brunswick Street (Alexandra Pde to Victoria Pde), Fitzroy Gertrude Street (Smith St to Nicholson St), Fitzroy Smith Street (Victoria Pde to Gertrude St), Fitzroy Smith Street (Gertrude St to Queens Pde), Fitzroy Napier Street (Freeman St to Victoria Pde), Fitzroy Canning Street (Park St to Princes St), North Carlton Rathdowne Street (Park St to Princes St), North Carlton Newry St (Lygon St to Nicholson St), Nth Carlton Scotchmer St (Nicholson St to St George Rd), Nth Carlton Richardson St (Lygon St to Nicholson St), Nth Carlton Michael St (St George Rd to Queens Pde), Nth Fitzroy Russell Crescent (St George Rd to Queens Pde), Nth Fitzroy Pigdon Street (Bowen Crescent to Nicholson St), Princes Hill Park St (Bowen Crescent to Nicholson St), Princes Hill Lennox Street (Victoria St to Swan St), Richmond Highett Street (Burnley St to Hoddle St), Richmond Wellington Street (Queens Pde to Victoria Pde), Yarra Elizabeth St (Hoddle St to Church St), Richmond Coppin St (Highett St to Swan St), Richmond Muir Street (Burnley St to Hoddle St), Richmond Freeman Street (Burnley St to Hoddle St), Richmond
Other local roads	Other roads in the Register of Public Roads
All constructed laneways	All constructed laneways

Table 1 – Road Maintenance Categories

Council has a number of laneways that are not constructed and is not obligated to do any particular work, and in particular, is not obligated to do any surface or drainage work on an unmade road or laneway.

3.3 Pathway

Council's pathway maintenance category is based on 'pedestrian service level' and reflects the perceived risk associated with the pedestrian usage.

The classification gives regards to the following factors that have influence on 'pedestrian service level' –

- anticipated volumes of pedestrians, for example, in the vicinity of a railway station, busy shopping centres;
- age group of pedestrians, for example, young age in the vicinity of schools, old age in the vicinity of senior citizen centres;
- physical health of pedestrians, for example, weaker health in the vicinity of hospitals;

The following pathway maintenance category has been adopted to assist in setting performance standards in terms of inspection, maintenance, intervention levels and repairs.

Pedestrian Volume /Service Level	Pedestrian Environment
High	Major shopping strips, schools, aged care centres, senior citizen centres, hospitals, libraries, main community facilities, transport hubs. Significant Park paths and shared pathways
Low	Residential areas, mainly at local streets.

Table 2 – Pathway Maintenance Categories

Significant parks are:

- Edinburgh Gardens (St Georges Road, Nth Fitzroy)
- Fairfield Park (Heidelberg Road, Fairfield)
- Darling Gardens (Hoddle Street, Clifton Hill)
- Quarries Park (Ramsden Street, Clifton Hill)
- Barkly Gardens (Mary Street, Richmond)
- Burnley Park (Swan Street, Richmond)

Shared pathways included are:

- Yarra Trail (Punt Road to Dights Falls)
- Merri Pathway (Dights Falls to municipal boundary in North Fitzroy)
- Inner Trail (Rushall Crescent to Bowen Crescent)

High pedestrian volume streets are listed in Appendix 3.

4 PERFORMANCE STANDARDS

4.1 Objectives

The objectives of setting performance standards –

- (1) Ensure public safety – achieved by regular Hazard Inspection and being responsive to hazard notification, including emergency situation like traffic crashes.
- (2) Protect road infrastructure assets – achieved by regular Defect Inspection and develop planned maintenance repairs to avoid or minimise impairment to the asset's highest and best use potential. This is essential for the delivery of road transport service at the lowest cost to the communities.
- (3) Ensure an appropriate level of protection against civil liability claims based on available Council resources.

4.2 Determining Level of Service

Council has determined the standard to which it will inspect, maintain and repair roadways, pathways, road infrastructure and road related infrastructure assets. When assessing appropriate levels of service required for the various activities, the following was also taken into consideration;

- Road and Pathway hierarchy
- Road usage
- Level of risk
- Cost

Council sets the performance standards for the following operational functions in roads, pathways and ancillary areas –

- Inspection Program
- Maintenance levels of service (Defect intervention level and rectification time).

4.3 Inspection Program

Various road inspection programs are undertaken to identify defects and obtain condition data on the road infrastructure. The information obtained from these inspections is used to prioritise maintenance activities and develop future capital works programs.

Maintenance Category	Programmed Inspection Frequency
Road	
Roads with major on-road bike lanes	6-weekly drive through. 3-monthly on bicycles (of on-road bike lanes). 2-yearly walk through.
Other Local Roads	6-weekly drive through. 2-yearly walk through.
Laneways	2-yearly walk through.
Pathway	
High Pedestrian Volume	<u>On-street footpaths</u> 6-weekly drive through. 4-monthly walk through. <u>Park paths and Shared pathways</u> 6-monthly walk through
Low Pedestrian	6-weekly drive through.

Maintenance Category	Programmed Inspection Frequency
Volume	2-yearly walk through.
Bridges	
Pedestrian Bridge	Level 1 Inspection (12-monthly)
Road Delineation*	
All Categories	6-weekly drive through. 2-yearly walk through.

*typically include safety signs, guide posts, safety barriers, line-marking and pavement markers

Table 3 – Inspection Programs

4.3.1 Six-Weekly Drive-Through Inspection

During this drive-through survey, inspections are undertaken from within a vehicle and cover all streets (both roads and footpaths) in the City over a six-week cycle. These inspections identify potential risk management issues reducing Council's exposure to liability claims.

Reactive maintenance includes pothole patching, minor repairs to footpath, kerb and channel, signs and street furniture. The reactive maintenance program aims to ensure infrastructure repairs are carried out in a timely manner with minimal deterioration occurring to the infrastructure.

4.3.2 Two-yearly Road Reserve Inspection Program (RRIP)

The municipality is divided into 21 precincts for the purpose of these surveys.

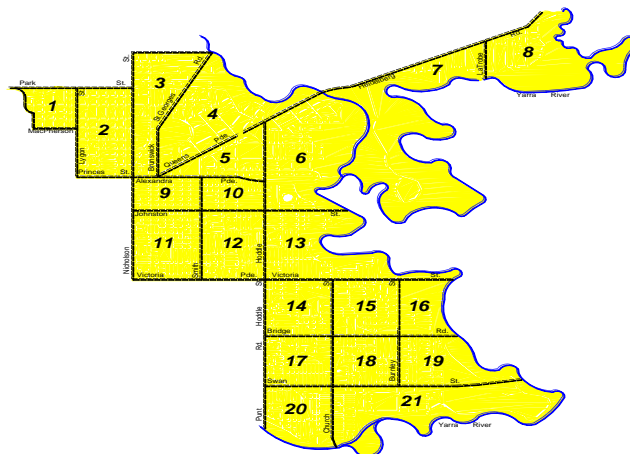


Figure 5 – City of Yarra Precinct Map

This inspection program involves a trained inspector walking every street in the precinct recording any irregularity to the infrastructure that is outside intervention level and covers the whole municipality on a two-year cycle.

This inspection concentrates on the identification of obvious defects to roads, footpaths and signs that are outside the maintenance intervention levels however it also identifies defects to other Council owned assets. Any defects associated with service utility pits, private street trees and vehicle crossings are reported to asset owner with a request to the asset owner to rectify the defect.

4.3.3 Four-monthly Walk-Through Inspection

This inspection concentrates on high pedestrian volume streets as listed in Appendix 3.

4.3.4 Three-monthly Inspection of Delineated On-road Bike Lanes

This inspection is carried out on bicycles of on-road bike paths some of which join major cycle routes with adjoining Councils.

4.4 Maintenance Levels of Service

Levels of Service, including inspection frequencies, repair intervention levels and response times have been established for specific activities within each road classification in the Road Hierarchy.

In developing these levels of service, Council has considered community expectations, current service levels, the level of risk imposed and available resources. The current maintenance service levels being delivered are seen as being very close to reflecting the balance between customer expectations and financial affordability.

It is envisaged that the Levels of Service will be reviewed annually as more accurate data becomes available and customer expectations and resource allocations are reassessed.

4.4.1 Defects Intervention Level

Council has adopted the following intervention levels for the major defect types.

Asset	Vertical Displacement /Lip	Tree Root related Heave or Settlement#	Cracking	Pothole
Road - With on-road bike lanes - Local street	> 30 mm > 50 mm	>150 mm >150mm	> 20 mm > 20 mm	> 50 mm > 100 mm
Footpath - High Pedestrian - Low Pedestrian	> 30 mm > 50 mm	> 50 mm > 100 mm	> 20 mm > 20 mm	> 50 mm > 50 mm
Kerb & Channel Channel settlement (5m length)	> 50 mm >150mm	>150 mm >150mm		
Laneway - Asphalt - Bluestone	> 50 mm >150 mm			
Utility / Non Council assets – - in road - in footpath	> 50 mm > 30mm			

measured at 2m from root base.

Table 4 – Defects Intervention Level

4.4.2 Typical Defects and Intervention Levels

Response times for service requests depend on the type of request and the risk to public safety.

The following table provides types of requests commonly received and their typical response times for permanent repair from time of request.

Defect And Intervention Level	Rectification Action	Maintenance Category /Response Time	
Pavement All service requests will be inspected and made safe within 48 hours from time of request. Permanent repairs as follows.		Roads with major on-road bike lanes	Local Roads
Potholes Pothole Ø=>300mm & D=>50mm (within on road bike lane) Pothole Ø=>300mm & D=>100mm	Patch potholes <1 m², in travelled way using bituminous and other appropriate materials to restore the riding surface to a smooth condition	7 days	10 days
Depression / Wheel Rut / Dig-out /Crocodile Cracks Ruts or depression >50mm below the surrounding pavement surface; Area affected <5 m²	Apply a regulating / levelling course of bituminous materials to depressed or rutted areas.	6 months	12 months
Cracking All Cracks > 20mm width	Seal and fill cracks and joints using liquid bituminous sealants	12 months	
Tree Root Damage – When pavement is raised >150mm (as measured 2m from base of tree).	Ramping out displacement Permanent repair	10 days 18 months (or refer to Capital Works Program)	
Poor Line Marking Visibility When reflectivity < 50%; or coverage <90%	Repaint/replace damaged missing or faded line marking	18 months	
Lips between Utilities Assets and Road Level difference > 50mm	Level out and make safe	Notify within 48 hours	
Missing or Damaged Pit or Cover (Third Party Assets)	Notify responsible service authority	Notify within 48 hours	
Laneway All service requests will be inspected and made safe within 48 hours from time of request. Permanent repairs as follows.		All Laneways	
Depression /Potholes (Asphalt or Concrete) Pothole Ø=>300mm & D=>50mm; or Mounding or depressions >50 mm	Apply a regulating / levelling course of bituminous materials to depressed or heaved areas of pavement <5m² Permanent repair	28 days 18 months (or refer to Capital Works Program)	
Depression (Bluestone) Adjoining stones level diff >50mm; or Mounding or depressions >150 mm	Reset, ramping out vertical displacement or replace broken, sunk, heaving, loose or missing bluestone Area> 20 sqm	6 months Refer to Capital Works Program	
Footpaths (within road reserves) All service requests will be inspected and made safe within 48 hours from time of request. Permanent repairs as follows.		High Pedestrian Volume	Low Pedestrian Volume
Trip Hazard Lips >30mm (High Pedestrian) Lips >50mm (Low Pedestrian)	Grind (concrete footpath), repair or replace (<5 bays) to level vertical displacement	7 days	10 days
Depression /Mounding Mounding /depressions >50mm.	Patch, regulate adjacent surface depression /mounding with appropriate materials, or replace paved areas where sunk, cracked heaved etc (<50m²).	6 months	12 months

Defect And Intervention Level		Rectification Action	Maintenance Category /Response Time	
Potholes Pothole Ø=>200mm & D>50mm		Patch potholes <0.2m² using bituminous and other appropriate materials to restore the surface to a smooth condition	7 days	10 days
Cracking All Cracks >20mm width		Seal and fill cracks and joints using liquid bituminous sealants	12 months	
Tree Root Damage (1m from tree base) Surface raised >50mm (High Pedestrian Volume) Surface raised >100mm (Low Pedestrian Volume).		Ramping out the displacement around tree roots using an asphalt fillet, concrete slurry or similar suitable material. Permanent repair	7 days 12 months	10 days 18 months
Damaged Vehicle Crossing Noticeable defects as to be potential hazards		Notify owner and request repair damage	Notify owner within 30 days	
Overhanging Vegetation (Council trees) Min Clearance: - 2.7 (above footpath) - 5m (above pavement).		Trim trees obstructing footpath, obscuring signs or visibility.	10 days	
Overhanging Vegetation (Private trees) Min clearance of 2.7 metres above the footpath and laneways.		Notify Council's Local Law.	Notify within 48 hours	
Damaged Stormwater Pit /Cover or Steps Level difference > 30mm		Level out to make safe, Repair or Replace	7 days	10 days
Lips between Utilities Assets and Footpath Level difference > 30mm		Level out and make safe	Notify within 48 hours	
Missing or Damaged Pit or Cover (Third Party Assets)		Notify responsible service authority	Notify within 48 hours	
Park Paths and Shared Trails (within Open Space Reserves) All service requests will be inspected and made safe within 48 hours from time of request. Permanent repairs as follows.			Significant Parks and Shared Trails	
Trip Hazard Vertical tripping point >10mm		Level out vertical displacement	7 days	
Potholes Pothole >25mm depth		Patch potholes to restore the surface to a smooth condition	7 days	
Overhanging Vegetation Min Clearance: 1.5m		Trim trees obstructing footpath	7 days	
Kerb and Channel All service requests will be inspected and made safe within 48 hours from time of request. Permanent repairs as follows.			Roads with major on-road bike lanes	Local Roads
Mounding /Settlement /Lateral Displacement Displacement >50 mm (between adjacent kerb); or Channel settlement >150mm (5m length)		Repair / replace / realign kerb pitcher	6 months	12 months
Vertical Displacement Lip >50 mm (non tree root related) Lip >150 mm (tree root related)		Repair / replace / realign kerb and channel	6 months	12 months
Drainage All service requests will be inspected and made safe within 48 hours			Roads with major on-road bike	Local Roads

Defect And Intervention Level		Rectification Action	Maintenance Category /Response Time	
from time of request. Permanent repairs as follows.			lanes	
Blocked Stormwater Pit or Pipe Local ponding of water; or a hazard to the public or associated property is evident;		Remove blockage and clean pit or pipe	30 days	30 days
Damaged Pit or Pipe Damaged or non-functional; or Leakage occurs		Repair or replace damaged pits, surrounds, grates, lids, or pipes	7 days	10 days
Roadside Furniture & Street Signs All service requests will be inspected and made safe within 48 hours			Roads with major on-road bike lanes	Local Roads
All Street Furniture (guardrail, barriers, bollards, seats, and bins) Bent, loose, damaged, non-functional or causing injury to the general public; > 10 degrees off the vertical; > 5% surface dented; > 5% surface corroded /rusty		Repair or Replace damaged items .	3 months	
Information signs and Supports Signs are damaged, incorrect, sign legend illegible at 150 m under low beam or in daylight, missing, or unstable support		Minor repair, straightening, re-erection, cleaning or replacement of signs and sole purpose supports.	30 days	
Regulatory signs and Supports Signs are damaged, incorrect, sign legend illegible at 150 m under low beam or in daylight, missing, or unstable support		Minor repair, straightening, re-erection, cleaning or replacement of signs and sole purpose supports.	2 days	
Pedestrian Bridges All service requests will be inspected and made safe within 48 hours from time of request. Permanent repairs as follows.			All Pedestrian Bridges	
Deck and Parapet Uneven deck, loose or missing screws /nails, planks or boards, spalled posts and parapets		Paint, realign, repair or replace damaged sections.	30 days	
Supports When distress detected during inspection		Treat or replace deteriorated bearers. Improve drainage on piers, remove and repair concrete spalls	18 months	
Hazards and Emergency All service requests will be inspected and made safe within 48 hours from time of request. Permanent repairs as follows.			All Pedestrian Bridges	
Obstructions Substances in Road or Footpath <ul style="list-style-type: none">Materials fallen from vehiclesDead animalsWet clay and other slippery substancesAccumulation of dirt or other granular materials on the traffic lane of sealed roadsPonding of water D >300mm (traffic lane)Ponding of water D>150mm (pedestrian area)potholes in traffic lane Dia >300mm and D >100mmFallen trees		Initial assessment Provide appropriate protection actions Rectification	4 hours 24 hours 5 days	

Defect And Intervention Level	Rectification Action	Maintenance Category /Response Time
<ul style="list-style-type: none"> Oil spills Damaged /missing drainage lids, surrounds, grates 		
Emergency Response (24x7) All works arising from emergency incidents including flooding, fires, storms, traffic accidents to ensure the safety of the public and protection of the asset		Respond within 20 minutes and make safe within 4 hours. Repair within agreed timeline dependent on defect

Table 5 – Defects Response Regime by Asset Hierarchy

4.5 Heritage Infrastructure

Heritage kerbs, channels and laneways are an important part of the historic fabric that contributes to the significant heritage overlay precincts in the City of Yarra.

Heritage bluestone kerb channel and laneways are recognised as being of local importance to the City of Yarra with historical, aesthetic and technical significance. Significant kerb, channelling and laneways in the City of Yarra should have a conservation approach applied to all aspects of works and use that affect them. This will ensure that the significance of the street infrastructure is maintained for present and future generations even though some of Council's heritage infrastructure may not meet modern design, construction or maintenance standards.

4.6 Constraints of Street Trees

Trees are the most important and highly visible asset within Yarra's parks, gardens and streets. They not only improve the liveability of the City, but characterise the place and provide enjoyment for people.

Many of the City's trees are culturally important and some have heritage significance. Council's aim is to retain trees wherever possible and to manage their well-being so that they continue to contribute to the quality of the urban environment.

Council has a policy to preserve street trees as far as possible.

4.6.1 Damage to infrastructure

Street trees are frequently blamed for causing damage to infrastructure including road and footpath surfaces, kerb and channel and the foundations of adjoining buildings and fences. In the City this is particularly pronounced due to the large quantity of narrow streets and the lack of adequate space for root and tree canopy growth due to the street's close proximity to adjoining infrastructure. The parent soils of the majority of the City have a high shrink swell character that can be exacerbated by some street trees removing moisture from the soil.

4.6.2 Maintenance Activities Due to Street Trees

Maintenance of roads, footpaths, kerb and channels may at times, where practical and without major damage to the integrity of the tree, require the tree root pruning. If this is considered necessary, the optimal timing of this work would generally occur during the winter months in order to preserve the health of the trees.

Where tree root pruning is not possible thus affecting effective remedial works it is recognized that local defects may persist such as ponding around the tree root base, obstruction to the natural flow of water in the kerb, and uplifting of footpath or road pavement outside the intervention levels.

Where a risk to pedestrians has occurred due to displacement of a footpath by tree roots, the site will initially be made safe and immediately referred to the program for temporary footpath repairs. Temporary repairs must be undertaken in such a manner that the integrity of the root system is not compromised however ensuring the risk to pedestrians is reduced. This may involve restoring the alignment and leveling out of the pathway surface with either replacement of pathway sections or ramping out the displacement using an asphalt fillet, concrete slurry or similar suitable material.

5 ROAD MANAGEMENT SYSTEM

5.1 Purpose

The purpose of 'management system' for road and road-related infrastructure is to help Council to fulfil the road management functions of a road authority, and in particular to achieve the performance standards set out in Section 4.

To this end, the 'management system' is aided by technology and computer systems to help –

- ensure information flows effectively and efficiently;
- manage and track customer requests and notifications;
- provide co-ordination and support to business units engaged in service delivery;
- ensure decision-making is better informed.

Road management functions are those functions defined in sections 3(1), 33 and 34, and as determined or clarified by Council policies under Section 52 of the Act.

Management functions are guided by the principles outlined in section 20 of the Act.

Council uses a number of processes which can be collectively be called the Road Management System to discharge its duty to inspect, maintain and repair public roads for which it is responsible.

The 'management system' is a combination of people, equipment, communications, computer systems, performance standards, guidelines and procedures.

The system has been developed based on the following key elements:

5.2 Management System to Inspect, Repair and Maintain

The key feature of Council's 'management system' is to assist people through the use of technology and computer systems, in particular, helping officers to deliver service to the community within the statutory framework of the Road Management Act.

The management system by which the components referred to in the Road Management Plan will be undertaken are detailed in the following flowchart – Management System to Inspect, Repair and Maintain Roads.

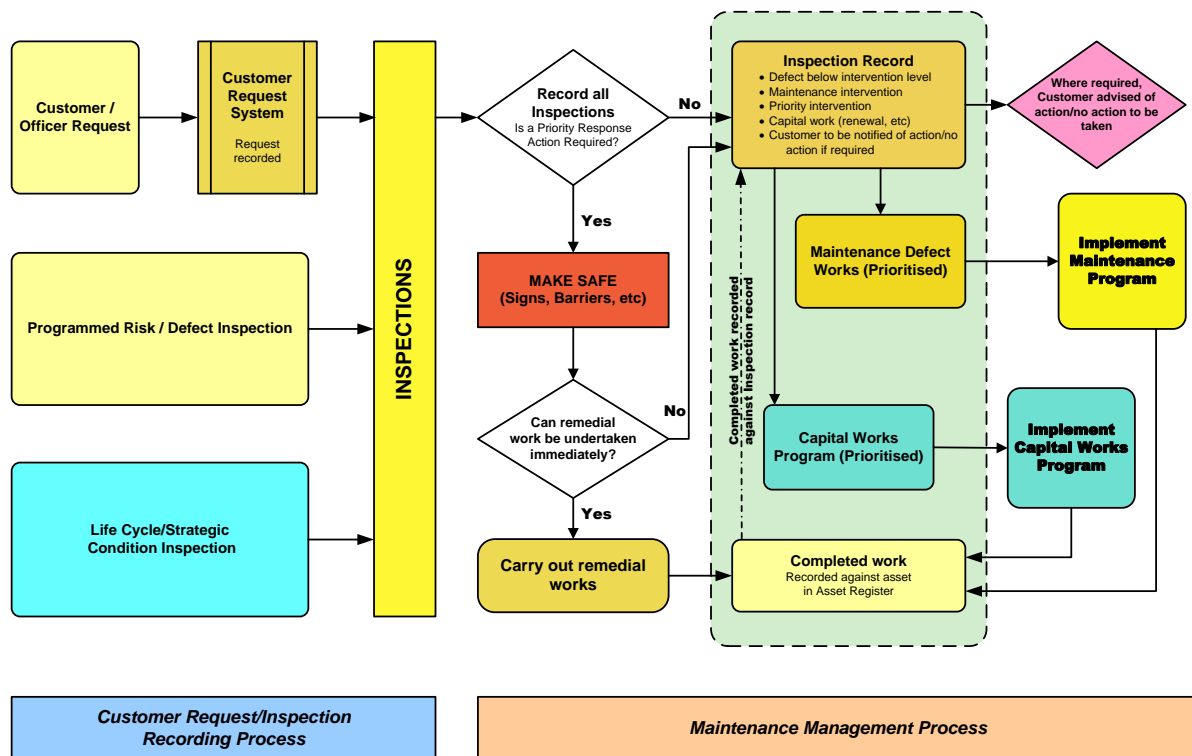


Figure 6 – Management System to Inspect, Repair and Maintain Roads

The key components of the management system are as follows.

5.2.1 Customer Request System (Reactive component)

Council operates a customer request system (MERIT CRM) that logs and tracks all customer requests. The system requires a Council employee or customer service officer to log details of issues or requests and to refer them to the appropriate officer for actioning. Records of all maintenance work, inspections and other actions performed on public roads are maintained in the MERIT CRM.

Information collected from Council's programmed inspections are also entered into MERIT CRM.

5.2.2 Works Program (Proactive component)

The works program is developed by the area delivering the service as nominated in the relevant Service Agreement. The works program will provide a proactive approach to maintenance or other works required by assessing the existing condition to determine if it is below, meeting or above the required standard as specified.

Officers will conduct regular inspections of the road assets on a programmed and regular basis. Works are assessed and a decision is made to either:

- accept the standard complies with the service levels and no action is required or;
- agree that the standard does not comply with the service levels and place the works on a program for repair within the specified timeframe. Works will be carried out within the timelines specified in the Road Management Plan.
- Only emergency works shall be carried out immediately.

5.2.3 Maintenance Works Program Development

The works program will be developed from both the reactive MERIT requests and the proactive program works based on the required timelines to complete the works as specified in the relevant

Service Level Agreement. The works program will be the primary program and the work generated from the MERIT system will feed into the works program to be carried out within the time specified.

The service area responsible will be required to develop the program and ensure that the works are carried out.

5.3 Computer Systems

The primary computer systems used in the 'management system' for road and road-related infrastructure are summarised below.

5.3.1 Merit Customer Request System

This is Council's corporate customer management system for all requests and notifications received from both the public and requests generated during the programmed inspections. Key functions are record keeping and request tracking.

5.3.2 TechnologyOne Asset Management System

This is intended to be Council's corporate asset and work orders database for all asset types and provides link with Customer Request System. The system is currently being rolled out progressively to various asset groups and is intended to replace all stand-alone individual asset class databases.

5.3.3 Municipal Asset Support System (MASS)

This is currently the primary asset database of all road segments and bridges before the rollout of TechnologyOne Asset Management System to road assets. It provides the essential asset data to other computer systems. As an asset register with all engineering attributes pertaining to road assets, MASS also provide key functions in condition assessment and reporting, asset valuation and depreciation schedules for accounting purpose.

5.3.4 Integraph GIS (Geographical Information System)

This is Council's corporate Geographic Information System to provide visual information by displaying asset data with a map and/or aerial photos as backdrop and is currently linked to MASS for engineering and condition attributes.

5.3.5 Road Reserve Inspection Program Audit System (RRIPA)

Council deploys an iPhone application with key functions to facilitate field data capture during the programmed inspections. The iPhone application enables field inspector to establish whether a defect manifestation is above the prescribed intervention level before defect data is logged. Defects information collected during field inspection are remotely transmitted to a server database which are then logged into MERIT to be further processed and programmed as either reactive or routine maintenance depending on the risk assessment.

5.4 Managing Emergency Responses

Council has established a 7x24 hour response capability so that assistance can be quickly provided in the event of an emergency.

Emergency means a situation which, due to the actual or imminent occurrence of an event, will –

- endanger or threaten the safety or health of any person,
- destroy or damage any property or infrastructure,
- endanger the environment.

For example:

- road accidents, traffic crashes, spillage on road surface,
- burst water mains, floods, fires and storms,
- statutory requirements under Emergency Management Act 1986.

Emergency response, in relation to road and road-related infrastructure, is primarily aimed at “reducing or removing risk to public” and to “protect infrastructure assets”.

Council will provide labour, equipment and materials to safeguard the public in accordance with the response time stipulated for extreme risk category as stated in Table xx. And in particular, undertake the following safeguard actions where applicable –

- erect warning signs and lights,
- provide traffic control,
- establish temporary speed limit,
- establish temporary denial of use by certain vehicles or pedestrians,
- establish lane closure / road closure,
- establish traffic detour, and
- any other action necessary to safeguard the public.

5.5 Managing Works Within Road Reserve

Anyone who intends to conduct works within a road reserve must obtain consent from the Co-ordinating Road Authority, unless exempt under the Road Management (Works and Infrastructure) Regulations 2005.

To simplify the process for customers, Council uses a standard consent process that applies to everybody including, but not limited to – property owners, occupiers, tradesman, builders, contractors, developers, building surveyors, utility companies, fire authorities, water authorities, telecommunication carriers and road authorities.

In general, Council is the Co-ordinating Road Authority for all the public roads in the municipality. VicRoads is the Co-ordinating Road Authority for freeways and arterial roads. When unsure as to whom you need to submit an application for consent, please contact Council's Road Management Engineer from the Engineering Services Department.

6 AUDIT AND REVIEW OF ROAD MANAGEMENT PLAN

6.1 Audit of Road Management Plan

The bi-annual audit will review compliance with the Road Management Plan and Service Level Agreements in relation to the specified duties and actions in that plan. Where major discrepancies are found matters shall be referred to the appropriate officer in Council for rectification and actioning.

A report on organisational Asset Management performance including the Road Management Plan will be presented to Council annually.

In addition, independent audits may be undertaken by Council's internal auditors or by external auditors such as Council's insurers.

6.2 Review of Road Management Plan

The Yarra City Council Road Management Plan is a living document and forms part of Council's Asset Management Framework.

- asset performance following delivery of maintenance program;
- the level of achievement of asset management strategies against the expected benefits to road users, stakeholders and the community; and
- the consideration of any external factors, including customer expectations that are likely to influence the contents of this Plan.

If the adopted level of service, i.e. defect intervention level and/or rectification response time, is not achievable, the level of maintenance effort may need to be varied. The level of service, the anticipated quantity of works and Council's budget and resources would have to be reviewed and a new Road Management Plan proposed.

This revised Plan would be subject to the consultation and approval processes as detailed in Sections 54 & 55 of the Act and Division 2 of the Road Management (General) Regulations 2005.

A Formal review, in accordance with sections 303 & 304 of the Road Management (General) Regulations 2005, will be conducted every four years generally in line with Council elections.

Appendix 1 - Freeway and Declared Arterial Roads within Municipality

Arterial Roads and Freeways	From – To
Eastern Freeway	Gold St. to Yarra River
Alexandra Pde	Nicholson St to Gold St.
Punt Rd	Yarra River to Bridge Road
Bridge Road	Hoddle St to the Yarra River
Hoddle St	Bridge Road to Queens Pde
Brunswick St	Alexandra Pde to St Georges Rd
Burnley St	Barkly Ave to Victoria St
Chandler Highway	Heidelberg Rd to Yarra River
George St	Alexandra Pde to Queens Pde
Heidelberg Rd	Queens Pde to Darebin Creek
Johnston St	Nicholson St to Yarra River
Nicholson St	Victoria Pde to the Municipal boundary
Princes St	Nicholson St to Lygon St
Queens Pde.	Heidelberg Rd to Merri Creek
St Georges Rd	Brunswick St to Merri Creek
Swan St	Punt Rd to Yarra River.
Victoria Pde	Nicholson St to Hoddle St.
Victoria St	Hoddle St to the Yarra River
Church St	Yarra River to Victoria Street
Yarra Boulevard	Bridge Road to Loyola Gv
Barkly Av	Burnley St to Gibdon St
Twickenham Cr	Gibdon St to Loyola Gv
Loyola Gv	Twickenham Cr to Madden Gv
Madden Gv	Loyola Gv to Swan St

Appendix 2 – Bridges Not Included

The following bridge structures are not maintained by the City of Yarra.

- Church St Bridge over Yarra River
- Johnston St Bridge over Yarra River
- St Georges Road Bridge over Merri Creek
- Heidelberg Road Bridge over rail line
- Mary St Bridge over rail line *
- Swan St Bridge over rail line *
- Hoddle Street Footbridge at Vere St
- Rushall Cres Footbridge over Merri Creek
- Victoria St Bridge over Yarra River
- Heidelberg Road Bridge over Merri Creek
- Burnley St Bridge over rail line *
- Coppin St Bridge over rail line *
- Church St Bridge over rail line *
- Freeman St Bridge over rail line *
- Johnston St Footbridge at Clarke St

* City of Yarra responsible for maintenance of the road pavement and/or footpath

Appendix 3 - High Pedestrian Volume Streets

Precinct	Street	From	To	Suburb
1	Richardson St	Garton St	Lygon St	Princes Hill
1	Arnold St	McPherson St	Pigdon St	Princes Hill
1	Wilson St	Solly Ave	Pigdon St	Princes Hill
1	Garton St	Paterson St	McPherson St	Princes Hill
2	Rathdowne St	Princes St	Richardson St	Carlton North
3	Nicholson St	Richardson St	Park St	Fitzroy North
3	St Georges Rd	Watkins St	Scotchmer St	Fitzroy North
4	Queens Pde	Wellington St	Hoddle St North	Fitzroy North
5	Nil			
6	Spensley St	O'Dwyer St	The Esplanade	Clifton Hill
7	Nil			
8	Yarraberg St	Lucerne Cres	Heidelberg Rd	Alphington
8	Lucerne Cres	Heidelberg Rd	Yarralea St	Alphington
9	Brunswick St	Alexandra Pde	Johnston	Fitzroy
10	Nil			
11	Victoria Pde	Nicholson	Brunswick	Fitzroy
11	Gertrude St	Nicholson	Smith St	Fitzroy
11	Smith St	Victoria Pde	Johnston St	Fitzroy
11	Brunswick St	Victoria Pde	Johnston St	Fitzroy
11	Fitzroy St	Victoria Pde	Gertrude	Fitzroy
11	Alma St	Entire length		Fitzroy
11	Regent St	Entire length		Fitzroy
11	Princes St	Entire length		Fitzroy
12	Otter St	Smith St	Wellington St	Collingwood
12	Stanley St	Smith St	Wellington St	Collingwood
13	Stanton St	Hoddle St	Park St	Abbotsford
13	Clarke St	Entire length		Abbotsford
13	St Heliers St	Entire length		Abbotsford
14	Victoria St	Hoddle St	Church St	Richmond
14	Bridge Rd	Hoddle St	Church St	Richmond
14	Lennox St	Bridge Rd	Highett St	Richmond
15	Church St	Highett	Bridge Rd	Richmond
15	Gleadell St	Bridge Rd	Highett	Richmond
16	Victoria St	Burnley	Yarra River	Richmond
17	Church St	Bridge Rd	Swan St	Richmond
17	Swan St	Punt Rd	Church St	Richmond
18	Bridge Rd	Church St	Burnley	Richmond
18	Swan	Church St	Burnley	Richmond
19	Nil			
20	Church St	Swan	Yarra River	Cremorne
21	Nil			