

# **Austroads Guide to Traffic Management**

## A New Era in Traffic Management Practice

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March 2011



**CHANGED  
TRAFFIC  
CONDITIONS  
AHEAD**

# What this presentation will cover



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- What's the purpose of Austroads Guide to Traffic Management
  - What's in the Austroads Guide to Traffic Management
  - Who was involved in the development of the Guide
  - What are the main topics and supplement highlights in each part
  - Concluding comments
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# Purpose of the Guide



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The Austroads Guide to Traffic Management seeks to capture:

- contemporary traffic management practice from member organisations
- emerging techniques and technologies
- relevant international experience

It provides valuable guidance to practitioners on the implementation of efficient, safe and economical management of road traffic

Member organisations have developed supplementary guidelines and manuals to cover specific situations

# Purpose of the Guide



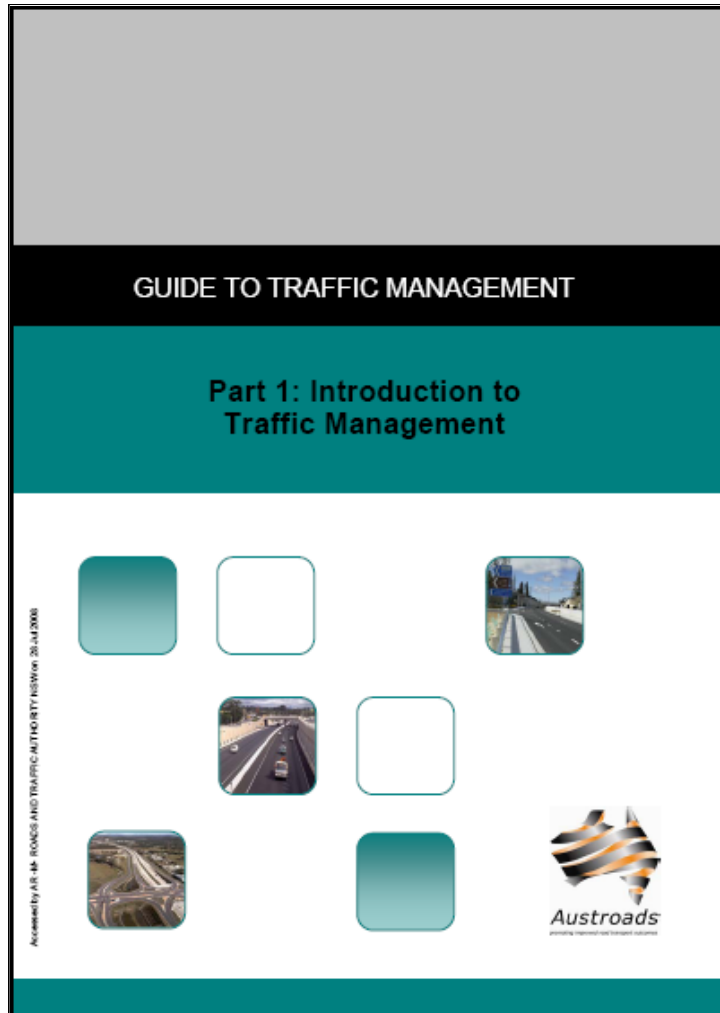
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The Guide is supported by links to the Guide to Road Design which provide detailed information and/or the Guide to Road Safety

Primary references are the Australian Standards, particularly AS 1742 – Manual of Uniform Traffic Control Devices (15 Parts), and the Australian Road Rules.

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# What's in the Guide



- Part 1 Introduction to Traffic Management
- Part 2 Traffic Theory
- Part 3 Traffic Studies & Analysis
- Part 4 Network Management
- Part 5 Road Management
- Part 6 Intersections, Interchanges & Crossings
- Part 7 Traffic Management in Activity Centres
- Part 8 Local Area Traffic Management
- Part 9 Traffic Operations
- Part 10 Traffic Control & Communications  
Devices
- Part 11 Parking
- Part 12 Traffic Impacts of Developments
- Part 13 Road Environment Safety

# Who was involved in developing the Guide



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Austrroads member organisations include:

- Roads and Traffic Authority New South Wales
- Roads Corporation Victoria
- Department of Transport and Main Roads Queensland
- Main Roads Western Australia
- Department for Transport, Energy and Infrastructure South Australia
- Department of Infrastructure, Energy and Resources Tasmania
- Department of Planning and Infrastructure Northern Territory
- Department of Territory and Municipal Services Australian Capital Territory
- Department of Infrastructure, Transport, Regional Development and Local Government
- Australian Local Government Association

# What are the main topics & highlights



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For each Part of the Austroads Guide to Traffic Management

**Main Topics**

**Supplement**

**Highlights**



# Austrroads Guide to Traffic Management

## Part 1: Introduction to Traffic Management



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### **Main Topics**

- Introduction to Traffic Management
- Basic Elements of Traffic Management
- Use of the Guide

### **Supplement Highlights**

- Supplement includes current Acts, Regulations and Rules specifically for NSW
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### **Main Topics**

- An introduction to the characteristics of traffic flow and the theories, models and statistical distributions used to describe many traffic phenomena
- Traffic Variables, queuing, gap acceptance, vehicle interactions in moving traffic

### **Supplement Highlights**

- None
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### **Main Topics**

- Traffic and transport data collection surveys and studies
- Traffic analysis for mid block situations
- Analysis of signalised and unsignalised intersections
- Capacity and level of service

### **Supplement Highlights**

- Supplement includes current RTA practice for Traffic Simulation and Computer Analysis models such as Sidra, Scates/Linsig, Paramics
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### Main Topics

- Broader issues and aspects of managing networks of roads to provide effective traffic management for all road users
- Network needs of freight, public transport, pedestrians, cyclists and private motor vehicles
- Network management objectives, operational objectives, network performance measures

### Supplement Highlights

#### RTA practice for Guide Signposting

- Guide Signposting (RTA) – internal working document only, is the primary reference document used by the RTA

#### RTA complementary material

- Route Assessment Guidelines for Restricted Access Vehicles (RTA).
- NSW Bicycle Guidelines (RTA)
- How to Prepare a Bike Plan (RTA)
- Planning Guidelines for Walking and Cycling
- How to Prepare a Pedestrian Access and Mobility Plan (RTA)

### Main Topics

- Focus on managing mid-block traffic conditions
- Good practice for access management, allocation of space to various road users, lane management
- Application of speed limits

### **Supplement Highlights**

RTA practices included in supplement:

- NSW Speed Zoning Guidelines (RTA), is the primary reference document used by the RTA
- Does not allow the use of HOT lanes (i.e. high occupancy vehicle toll lanes)
- Does not allow the use of exclusive truck lanes
- Does not allow animals (e.g. horses) or horse drawn vehicles on Freeways/Motorways

### **Main Topics**

- Selection of intersection type
- Unsignalised intersections, roundabouts, signalised intersections, interchanges, rail crossings
- Pedestrian and cyclist crossings of roads

### **Supplement Highlights**

RTA complementary material for Intersections, Interchanges and Crossings:

- Network Performance Measures and Network Planning Targets (RTA) – internal, primary reference document used by the RTA

### RTA practice for unsignalised intersections:

- For Give Way signage
  - Linemarking (300mm wide, 600mm long with 600mm spacing) must be included and extend across the full width of the road
- For Stop signs
  - Linemarking: A full line (300mm wide) shall be extended from the left hand edge of pavement to the dividing line and a broken line (150mm wide, 600mm long with 600mm spacing) shall be extended from the dividing line to right hand edge of pavement
  - RTA uses RTA signs and warrants for Stop signs. Refer RTA Sign Register

### RTA complementary material for signalised intersections:

- Traffic Signal Design (RTA)

### RTA complementary material for rail crossings:

- RTA fact sheet – Railway Level Crossings
- Fact sheet for design, operation and approval of railway crossing road infrastructure to support boom gates for level crossing program. (RTA)
- RTA Supplement Guide to Road Design, Part 4
- Traffic Signal Design, Section 15 and Appendix F, G (RTA).
- Delineation (RTA)

### Supplement highlights - Pedestrian Facilities

- Refuge Islands
- Pedestrian (Zebra) Crossings
- Children's Crossings
- Pedestrian Traffic Signals
- Pelican Crossings
- Pedestrian (Wombat) Crossings
- Pedestrian Overpass, Underpass
- Australian Standards, AS1742.10 - 2009, Pedestrian Control and Protection
- Austrroads Guide to Road Design, Part 4, Intersections and Crossings

### RTA practice for Pedestrian (Zebra) Crossings, Children's Crossings, Pelican Crossings, Pedestrian (Wombat) Crossings

- NSW practice does not permit crossings on roads with 2 or more marked travel lanes in same direction. This also applies to roads with 2 unmarked travel lanes in the same direction, i.e. where vehicles can pass other vehicles travelling in the same direction.
- Note: Can be provided by the provision of linemarking or kerb extensions that restrict the road to one travel lane each way or where a marked full time parking lane exists

# Austrroads Guide to Traffic Management

## Part 7: Traffic Management in Activity Centres



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### **Main Topics**

- Planning and traffic management of activity centres and associated transport nodes
- Principles for various types of centres

### **Supplement Highlights**

RTA complementary material:

- Sharing the Main Street (RTA)
- Planning Guidelines for Walking and Cycling
- NSW Bicycle Guidelines (RTA)
- How to Prepare a Pedestrian Access and Mobility Plan (RTA)
- Beyond the Pavement (RTA)
- Parking (RTA) (To be released in mid 2011)

# Austrroads Guide to Traffic Management

## Part 8: Local Area Traffic Management Schemes



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### **Main Topics**

- Principles and processes
  - Issues and resources
  - Selection of schemes and treatments
  - Design and implementation of schemes and devices
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### Supplement Highlights

RTA complementary material for LATM schemes:

- A Guide to the Delegation to Councils for the Regulation of Traffic (including the operation of Traffic Committees) (RTA).
- TDT 2001/04a - Use of Traffic Calming Devices as Pedestrian Crossings.
- Delineation (RTA)
- NSW Speed Zoning Guidelines (RTA)
- RTA Sign Register
- NSW Bicycle Guidelines (RTA)

Supplement includes RTA practice for Pedestrian Crossing warrants and Pedestrian (Wombat) Crossings. RTA uses Australian Standards AS1742.10 – 2009.

### Main Topics

- Applications used in traffic operations
- Current practice for common systems including traffic signals, congestion management, incident management and traveller information
- Event management
- Information management issues and principles

### Supplement Highlights

RTA complementary material included in supplement:

- Traffic Signal Design (RTA)
- Traffic Signal Operation (RTA)
- Guide to Traffic and Transport Management for Special Events (RTA)

RTA practice for Variable Message Signs:

- TDT 2005/02b - Guidelines for the Location and Placement of Variable Message Signs
- TDT 2010/07 - Use of Variable Message Signs – RTA policy

### Main Topics

- Signing and marking schemes
- Traffic signs, static and electronic
- Pavement markings and delineation
- Traffic signals and islands

## Supplement Highlights

RTA complementary material:

- Traffic Signal Design (RTA).
- Delineation (RTA)
- Guide Signposting (RTA), internal working document, is the primary reference document used by the RTA

RTA practice for traffic signs:

- RTA Sign Register
  - Australia Standards 1742 – Manual of uniform traffic control devices
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# Austrroads Guide to Traffic Management

## Part 11: Parking



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### Main Topics

- Parking policy
  - Data and surveys
  - On-street and off-street parking
  - Types of parking and parking control
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### **Supplement Highlights**

RTA complementary material for Parking:

- Parking (RTA) (To be released in mid 2011)
- Guide to Traffic Generating Developments (RTA) – primary reference document used by the RTA
- Permit Parking (RTA)
- Pay Parking (RTA)
- Restricted Parking Areas (RTA)

RTA complementary material uses RTA Parking Manual for:

- Coach, Bus and Truck Parking; Mobility Parking; Parking Management; Parking Policies; Effectiveness Audit for Parking Schemes; Special Event Parking; Preferential parking zones; Car share parking schemes; Truck and Bus Parking Areas on Freeways/Motorways

### **Main Topics**

- Relationship to road level of service and access management
- Development profile and trigger points for treatment
- Traffic impact assessment

### **Supplement Highlights**

RTA complementary material:

- Guide to Traffic Generating Developments (RTA)
- Land Use Development Assessment Guidelines (RTA)
- Network and Corridor Planning Practice Notes (RTA)
- NSW Road Management Arrangements
- Parking (RTA) (To be released mid 2011)

### **Main Topics**

- Principles and management of the safety of road environments within a traffic management context

### **Supplement Highlights**

RTA complementary material included in supplement:

- RTA supplement for Austrroads Guide to Road Safety
  - Road Environment Safety: A Practitioner's Reference to Safer Roads (RTA)
  - Accident Investigation and Prevention: Policy and Guidelines (RTA)
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# Next Stages for You

Get copies and familiarise yourself with the New Guides

Plan to update your organisation on new Austroads Guide to Traffic Management and its Supplement

Use the New RTA Traffic Management Reference List to find :

- topics within Guide
- the Guide on website

Always check RTA website for updates

# Concluding comments

The Austroads Guide to Traffic Management provides valuable guidance to practitioners on the implementation of efficient, safe and economical management of road traffic

The RTA supplement for Austroads GTM provides guidance on RTA practice, RTA complementary material and RTA departures

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