

# TRUNK ROAD INFRASTRUCTURE STANDARD No. 04

## ROAD SAFETY

Supplement to Austroads Guide: Road Safety



**ACT**  
Government

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Territory and Municipal Services

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## PREFACE

The Austroads series of Guides for provision and management of road and transport infrastructure provides a level of consistency across all jurisdictions in Australia and New Zealand. All road authorities have agreed to adopt the Austroads Guides as the primary technical reference, together with the relevant Australian and New Zealand Standards.

The Australian Capital Territory has adopted the Austroads Guides, and has issued a revised series of documents to reflect this development in standards and specifications for practice in the ACT. This present document is part of the ACT Trunk Road Infrastructure Standard (TRIS) series spanning the broad scope of road infrastructure development in the ACT:

- TRIS 01 – Road Planning
- TRIS 02 – Road Design
- TRIS 03 – Traffic Management
- TRIS 04 – Road Safety
- TRIS 05 – Asset Management
- TRIS 06 – Pavement Design
- TRIS 07 – Bridges and Structures
- TRIS 08 – Road Tunnels
- TRIS 09 – Project Delivery
- TRIS 10 – Project Evaluation.

Each of the TRIS documents indicates adoption of the relevant Austroads Guide, sets out specific requirements for implementation in ACT, and calls up more detailed Specifications.

This ACT Trunk Road Infrastructure Standard No.04 - ROAD SAFETY constitutes a supplement to the

### **AUSTROADS GUIDE TO ROAD SAFETY**

The Territory and Municipal Services Directorate accepts the principles and general guidance in the Guide to Road Safety. This Trunk Road Infrastructure Standard is issued to clarify any exceptions or additional requirements for implementation in the ACT, and to identify relevant complementary documents.

The planning, design and management of engineering measures for road safety in the ACT must be implemented in general accordance with the Austroads Guide above, and in accordance with specific provisions of this Trunk Road Infrastructure Standard.

Where any differences in practice exist between the Austroads Guide and this Trunk Road Infrastructure Standard, the latter will prevail.

## CONTENTS

PREFACE.....	3
CONTENTS.....	4
1 GENERAL.....	5
2 GENERAL PRINCIPLES.....	5
3 REFERENCE DOCUMENTS.....	5
3.1 GUIDELINES.....	5
3.2 RELATED TECHNICAL SPECIFICATIONS.....	6
3.3 LEGISLATIVE DOCUMENTS.....	6
4 SUPPLEMENTARY MATERIAL.....	6
5 SPEED CAMERAS.....	9
5.1 INTRODUCTION.....	9
5.2 GUIDELINES.....	9
6 TYPES OF CAMERAS.....	9
7 CAMERA LOCATIONS.....	10
8 SCHOOL ZONES AND ROAD WORKS.....	10
9 SPEED AND RED LIGHT CAMERA SIGNAGE.....	10
10 REFERENCE LIST.....	11
11 STANDARD DRAWINGS.....	11

## 1 GENERAL

Road safety initiatives in the ACT are implemented and managed in accordance with the **ACT Road Safety Strategy and Action Plans**. The Strategy provides a framework for addressing ACT road safety concerns over the next 10 years. The Action Plans provide a list of items to be progressed over a period aligned with the short term initiatives in the National Road Safety Strategy.

Coordination of initiatives within the ACT road safety program is the responsibility of the Justice and Community Safety Directorate. The Territory and Municipal Services Directorate is responsible for developing and implementing road safety engineering programs under the Strategy and Action Plans.

## 2 GENERAL PRINCIPLES

The current **ACT Road Safety Strategy** includes an integrated approach to improving road safety, using a range of education, encouragement, engineering, enforcement, evaluation and support measures. There is also a strong application of national 'safe system' principles and measures to address cultural change. The Strategy adopts and complements the principles of the **National Road Safety Strategy**, in particular its vision, targets and focus on the safe system approach.

The safe system approach requires responsible road user behaviour, but also makes allowance for human error and recognises that there are limits to the forces that humans can withstand in a crash. The approach is based on there being safe speeds, safe roads and roadsides, safe vehicles, and safe road user behaviours.

## 3 REFERENCE DOCUMENTS

The primary reference documents for road safety management in ACT are as follows:

- Australian Road Rules 2012
- Roads and Public Places Act 1937
- Road Transport (General) Act 1999
- Road Transport (Safety and Traffic Management) Act 1999
- Road Transport (Mass, Dimensions and Loading) Act 2009
- Road Transport (Safety and Traffic Management) Regulation 2000
- Legislation Act 2001
- Planning and Development Act 2007 and the Territory Plan 2008
- Public Roads Act 1902
- Disability and Discrimination Act 1992
- National Road Safety Strategy 2011
- ACT Road Safety Strategy 2011
- ACT Road Safety Action Plan 2011
- ACT On-Road Cycling Policy.

Details for all reference documents are given in Section 0 Reference List.

### 3.1 GUIDELINES

The primary technical guidance is set out in the **Austrroads Guide to Road Safety**, which is structured as follows:

- Part 1 – Road Safety Overview
- Part 2 – Strategy and Evaluation
- Part 3 – Speed Limits and Speed Management
- Part 4 – Local Government and Community Road Safety
- Part 5 – Rural and Remote Areas
- Part 6 – Road Safety Audit
- Part 7 – Road Network Risk Assessment and Management
- Part 8 – Treatment of Crash Locations
- Part 9 – Roadside Hazard Management.
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Safety is also addressed in the following Austrroads Guides:

- Austrroads Guide to Traffic Management  
particularly Part 13: Road Environment Safety
- Austrroads Guide to Road Design  
particularly Part 6: Roadside Design, Safety and Barriers.

For consolidated guidance related to cycling facilities, refer to:  
*Cycling Aspects of Austroads Guides*. Report AP-G88-11, Austroads 2011.

This report contains information that relates to the planning, design and traffic management of cycling facilities and is sourced from Austroads Guides, primarily the Guide to Road Design, the Guide to Traffic Management and the Guide to Road Safety.

### 3.2 RELATED TECHNICAL SPECIFICATIONS

Further design requirements related to road safety are given in ACT Trunk Road Infrastructure Standard 02 – Road Design, particularly Attachment E – Pedestrian and Cyclist Facilities.

Detailed requirements for materials, processes, or procedures related to road safety management in the ACT are prescribed in:

- ACT Trunk Road Infrastructure Technical Specification No.01 – Roadworks
- ACT Trunk Road Infrastructure Technical Specification No.13 – Traffic Signals
- ACT Trunk Road Infrastructure Technical Specification No.14 – Road Signs
- ACT Trunk Road Infrastructure Technical Specification No.15 – Road Furniture

Implementation of road safety engineering measures must be undertaken in accordance with these Technical Specifications.

The Austroads Guides and the ACT Technical Specifications refer to the requirements of relevant Australian Standards.

### 3.3 LEGISLATIVE DOCUMENTS

## 4 SUPPLEMENTARY MATERIAL

The following tabulated material indicates elements of the implementation of road safety measures in ACT, as they relate to the content of the various Parts of the Austroads Guide to Road Safety. The tables provide advice on any additional ACT requirements, or exceptions, to the provisions of the Guide. Complementary documentation is also indicated where relevant.

<b>SUPPLEMENT TO THE AUSTRADS GUIDE TO ROAD SAFETY PART I: ROAD SAFETY OVERVIEW PUBLICATION DATE: 2009</b>		
Discusses road crash costs and road authorities' duty of care to provide safe travel, different approaches to measuring road safety, the Safe System approach as a conceptual framework for road safety management and the merits of an evidence-based approach to countermeasures.		
Reference Section	ACT Practice, Complementary Material, or Departures	Date
General	Part I of the Guide is adopted with no exceptions in principle for the practice in ACT.	
3.4	All traffic crashes in the ACT are required to be reported to the police, irrespective of the amount of damage or the extent of injury. The police attend the more serious crashes, and prepare a report. Crash data are entered onto the AFP system for police purposes. The data are also entered into the TAMS traffic crash database which provides the basis for analysis of crash patterns.	

SUPPLEMENT TO THE AUSTRROADS GUIDE TO ROAD SAFETY PART 2: STRATEGY AND EVALUATION PUBLICATION DATE: 2006		
Provides an overview of road safety planning and essential processes. It discusses an evidence-based approach to road safety, strategic partnerships, setting realistic goals, safer roads, vehicles and road users, monitoring and review, and outlines the process of strategy development.		
Reference Section	ACT Practice, Complementary Material, or Departures	Date
General	Part 2 of the Guide is adopted, with no exceptions in principle for the practice in ACT.	
1.2	The ACT Government has responsibility for implementing road safety initiatives in accordance with the national and Territory road safety strategies for all areas of the ACT. This includes activity in local community areas as well as Territory-wide activity.	
2	Responsibility for road safety management in ACT is shared between <ul style="list-style-type: none"> <li>• Justice and Community Safety Directorate</li> <li>• Territory and Municipal Services Directorate</li> <li>• Australian Federal Police</li> </ul>	

SUPPLEMENT TO THE AUSTRROADS GUIDE TO ROAD SAFETY PART 3: SPEED LIMITS AND SPEED MANAGEMENT PUBLICATION DATE: 2008		
Discusses principles and application of speed limits to improve road safety, in the safe system context, while maintaining the efficiency of the road network. Outlines types of speed limits and the factors to be addressed in their selection: types of road users, the road environment, types of vehicles and the safety, amenity and economic needs of the community.		
Reference Section	ACT Practice, Complementary Material, or Departures	Date
General	Part 3 of the Guide is adopted, with no exceptions in principle for the practice in ACT.	
3.1	In ACT there is a single default speed limit of 50 km/h.	
3.2	Guidance for the application of speed limits in ACT is provided in <b>Trunk Road Infrastructure Standard No. 03 - Traffic Management</b> .  Application of speed limits outside schools in ACT is included in <b>Guidelines for Road Safety and Traffic Management Around Schools</b> .	
4	Guidance on the enforcement of speed limits in ACT, particularly the identification of sites for speed cameras, is provided in <b>Section 7 of this supplement: camera locations</b> .	

SUPPLEMENT TO THE AUSTRROADS GUIDE TO ROAD SAFETY PART 4: LOCAL GOVERNMENT AND COMMUNITY ROAD SAFETY PUBLICATION DATE: 2009		
Covers strategic partnerships and capacity building, developing a road safety strategy, funding a plan and mobilising resources, implementation, recent case studies of road safety strategies and individual activities, and monitoring, evaluation and review.		
Reference Section	ACT Practice, Complementary Material, or Departures	Date
General	Part 4 of the Guide is adopted, with no exceptions in principle for the practice in ACT.	
1.9.7	The ACT Government has responsibility for road safety policy, planning and implementation in local community areas as well as Territory-wide.	

<b>SUPPLEMENT TO THE AUSTRROADS GUIDE TO ROAD SAFETY PART 5: RURAL AND REMOTE AREAS PUBLICATION DATE: 2009</b>		
Quantifies the road safety problem on rural and remote roads, identifies the people most at risk of being involved, factors that contribute to these crashes, possible countermeasures and monitoring and evaluation options.		
<b>Reference Section</b>	<b>ACT Practice, Complementary Material, or Departures</b>	<b>Date</b>
General	The principles and approaches to identifying risk factors and their countermeasures set out in Part 5 are endorsed.	

<b>SUPPLEMENT TO THE AUSTRROADS GUIDE TO ROAD SAFETY PART 6: ROAD SAFETY AUDIT PUBLICATION DATE: 2009</b>		
Details the road safety audit process and discusses legal liability, costs and benefits, safety principles and technical issues which need to be considered in road safety engineering. Includes updated checklists for use in assessing road designs and inspecting sites at different stages of a project.		
<b>Reference Section</b>	<b>ACT Practice, Complementary Material, or Departures</b>	<b>Date</b>
General	Part 6 of the Guide is adopted, with no exceptions in principle for the practice in ACT.  Road safety audits in ACT are to be conducted in accordance with the process detailed in Part 6 of the Guide.	

<b>SUPPLEMENT TO THE AUSTRROADS GUIDE TO ROAD SAFETY PART 7: ROAD NETWORK RISK ASSESSMENT AND MANAGEMENT PUBLICATION DATE: 2006</b>		
Covers communication and consultation, identifying risks, analysing, evaluating and treating risks, monitoring and review. Examples of risk are provided, including road trauma, legal risk, and risk from adverse public opinion. Case studies are provided to assist in assessment and management of risks.		
<b>Reference Section</b>	<b>ACT Practice, Complementary Material, or Departures</b>	<b>Date</b>
General	Part 7 of the Guide is adopted, with no exceptions in principle for the practice in ACT.  The approach to network risk assessment in ACT is to be in accordance with the principles and processes outlined in Part 7 of the Guide.	

<b>SUPPLEMENT TO THE AUSTRROADS GUIDE TO ROAD SAFETY PART 8: TREATMENT OF CRASH LOCATIONS PUBLICATION DATE: 2009</b>		
Explains how to identify crash locations, diagnose the crash problem and its causes, select a countermeasure which targets the problem, design a safe remedial treatment and establish its cost effectiveness. It also provides information on sources of road crash data and how engineering improvements fit into a road safety strategy.		
<b>Reference Section</b>	<b>ACT Practice, Complementary Material, or Departures</b>	<b>Date</b>
General	Part 8 of the Guide is adopted, with no exceptions in principle for the practice in ACT.  Investigation and treatment of crash locations in ACT are to be conducted in accordance with the process detailed in Part 8 of the Guide.	



<b>SUPPLEMENT TO THE AUSTRROADS GUIDE TO ROAD SAFETY PART 6: ROADSIDE HAZARD MANAGEMENT PUBLICATION DATE: 2008</b>		
Provides guidance in reducing the incidence and severity of run-off-road crashes. Discusses the need to provide a road environment that minimises potential for loss of vehicle control. Also discusses safety barriers and the need to provide a roadside free of hazards or one which is forgiving, and the need to take a strategic approach to treating and managing roadside hazards.		
Reference Section	ACT Practice, Complementary Material, or Departures	Date
General	Part 9 of the Guide is adopted, with no exceptions in principle for the practice in ACT.  Application of the principles, as set out in the Guide, has greatest relevance to the rural road environment; there are limited opportunities for application in the local road environment areas of ACT.	
3	Guidance on the design and installation of safety barriers in the road environment is provided in <ul style="list-style-type: none"> <li>• <b>Trunk Road Infrastructure Standard No.02 - Road Design, Section 7 Fences, Guardrails and Barriers.</b></li> </ul>	
3.3.2	Injuries to motorcyclists impacting safety barriers is of particular concern in ACT. Innovation in the design and installation of barriers which decrease the potential for serious injuries to motorcyclists is encouraged.	

## 5 SPEED CAMERAS

### 5.1 INTRODUCTION

Speed enforcement by ACT Policing and the Traffic Camera Office is a key element in encouraging motorists to travel at safer speeds. The ACT Safety Camera program uses fixed red light/speed (intersection) and fixed speed (mid-block) cameras, as well as mobile camera vans.

Some 6,480 traffic infringement notices were issued by ACT Policing for speeding offences during 2006. Over the same period, over 27.6 million vehicles were checked and some 38,800 infringement notices were issued by ACT fixed and mobile speed cameras.

The philosophy behind using traffic cameras to improve road safety is to provide a community perception that speeding and running red lights is not worth the risk because of the increased chance of detection.

The Government is not in the business of “revenue raising” from speed cameras. However, if motorists break the law by continuing to drive over the speed limit, they could well find themselves paying the penalty. Only speeding motorists should fear a speed camera.

### 5.2 GUIDELINES

**ACT Traffic Camera Office, Mobile speed camera unit site selection criteria.**

## 6 TYPES OF CAMERAS

Within the ACT, four forms of camera devices are used:

- Fixed red light/speed cameras at intersections
- Fixed speed only cameras at mid – blocks
- Mobile camera vans
- Point-to-point speed cameras.

## 7 CAMERA LOCATIONS

In October 2005, the Government agreed to allow all arterial, major collector and minor collector roads in the ACT to be assessed, and if suitable, designated as traffic camera sites.

Camera locations are regularly reviewed and updated, with roads and sites being added or changed to ensure that the camera program clearly addresses road safety needs.

In selecting specific sites along the designated roads, the following criteria must be taken into consideration:

- Fixed and mobile cameras should not be positioned to detect vehicle speeds within 200 metres of a change in speed zone
- The positioning of any fixed or mobile cameras must be safe for camera operators (mobile cameras) and members of the public (motorists, cyclists and pedestrians)
- Sites must meet workplace health and safety standards for speed camera operators and units as outlined by the Traffic Camera Office
- The fixed or mobile camera equipment or vehicle must not be positioned in a way that is likely to cause any obstruction or interruption to the traffic flow
- Sites for fixed cameras are also subject to power and technical considerations.

## 8 SCHOOL ZONES AND ROAD WORKS

Mobile cameras will not be used to enforce speed restrictions in school zones or areas affected by road works. Police will continue to use interception methods of enforcement at school zones and road work sites as a high priority within the AFP's traffic enforcement plan.

Fixed cameras will operate during road works but will not take images of motorists at speeds lower than the usual speed limit for that section of road.

Red light images are captured irrespective of speed reductions or road works. Speed reductions due to road works will be enforced by police interception methods.

## 9 SPEED AND RED LIGHT CAMERA SIGNAGE

Large signs displaying the message "Speed and Red Light Cameras used in the ACT" are provided at the border on all major entry roads to the ACT. Further to this, there are some 41 signs on the major arterial roads which carry signs consisting of a "Speed Cameras used in the ACT" with a camera image. These are normally paired with a "50 unless otherwise sign posted" sign.

All locations that operate fixed speed/red light or speed-only cameras have advance warning signage, advising motorists that cameras are in operation at that location.

The red light/speed cameras have signs which carry the messages "Red Light and Speed Camera Ahead" placed on the approaches to the camera intersection.

The midblock cameras use a set of three signs on the approach to the camera site which show "Speed Camera 24 hours" at a 300 to 500 metres distance to the camera, "Speed Camera Ahead" at 150 to 250 metres, and "Heavy Fines Loss of Licence" at 50 to 100 metres to the camera. These signs are of a size similar to that used in NSW, and include a camera symbol and the posted speed limit.

Mobile camera vans display portable signs displaying the posted speed limit for the road and a message "Your speed has been checked". These signs may be placed adjacent to or on the speed camera vehicle.

## 10 REFERENCE LIST

ACT Road Safety Strategy 2011-2020. Justice and Community Safety, ACT Government, 2011.

ACT Road Safety Action Plan 2011-2013. Justice and Community Safety, ACT Government, 2011.

ACT On-Road Cycling Policy. ([www.tams.act.gov.au/move/cycling/onroadcycling](http://www.tams.act.gov.au/move/cycling/onroadcycling)) Territory and Municipal Services, ACT Government, 2011.

Australian Road Rules. ([www.ntc.gov.au/filemedia/Reports/ARRFeb12.pdf](http://www.ntc.gov.au/filemedia/Reports/ARRFeb12.pdf)) National Transport Commission, Melbourne, 2012.

Australian Transport Council 2011, National Road Safety Strategy 2011-2020, ATC, Canberra, ACT.

Austrroads 2009. Guide to Road Design, Parts 1-8, AGRD09, Austrroads, Sydney, NSW.

Austrroads 2009. Guide to Road Safety, Parts 1-9, AGRS09, Austrroads, Sydney, NSW.

Austrroads 2009. Guide to Traffic Management, Parts 1-13, AGTM09, Austrroads, Sydney, NSW.

*Cycling Aspects of Austrroads Guides*. Report AP-G88-11, Austrroads 2011.

Australian Transport Council 2011, *National Road Safety Strategy*, Canberra, ACT.

## 11 STANDARD DRAWINGS