Today’s moderator

Eliz Esteban
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About Austroads

The peak organisation of Australasian road transport and traffic agencies

- Roads and Maritime Services New South Wales
- Roads Corporation Victoria
- Department of Transport and Main Roads Queensland
- Main Roads Western Australia
- Department of Planning, Transport and Infrastructure South Australia
- Department of State Growth Tasmania
- Department of Transport Northern Territory
- Transport Canberra and City Services Directorate, Australian Capital Territory
- Commonwealth Department of Infrastructure and Regional Development
- Australian Local Government Association
- New Zealand Transport Agency
Housekeeping

Webinar = 25 mins
Question time = 15 mins
Please type your questions here
Download from Austroads Website:

Today’s presenter

David Green
Senior Engineer
Network Operations
Congestion, Freight and Productivity

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Agenda

1. Introduction and purpose of webinar
2. Philosophy of Austroads Guide to Traffic Management (AGTM) Part 13
3. Key changes to AGTM Part 13
4. Structure of AGTM Part 13
5. Conclusion
6. Questions
Introduction and purpose of webinar

- The Austroads Guide to Traffic Management Part 13: Road Environment Safety:
  - Discusses safety of the road environment in a traffic management context
  - Provides reference to relevant Austroads Guide Parts for guidance on safety
- The Guide was updated in 2017 as part of Austroads Project NTM2081
- This webinar provides an overview of the key changes to the Guide
Introduction to team

Project Team

Austroads Project Manager
Pawel Potapowicz

Project Leader, ARRB
David Green

Team Member, ARRB
Kenneth Lewis

Review Team

Austroads Project Working Group

Austroads Traffic Management Working Group

Stakeholders-Road and Traffic Authorities

Austroads Network Taskforce

Austroads Board
AGTM Part 13 Update: The Project Team

Austroads Project Working Group

- Aftab Abro
  NT
- Simon Harrison
  (Safety Rep)
  TMR QLD
- Sam Atabak
  TMR QLD
- Kevin Webster
  RMS NSW
- Melvin Eveleigh
  (Safety Rep)
  TNSW
- Pawel Potapowicz
  Roads ACT
- Matthew Pascoe
  VicRoads
- Philip Stratton
  DPTI - SA
- Dave Landmark
  Main Roads WA
- Richard Burk
  Department of State Growth
- Fergus Tate
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  Department of State Growth
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  NZTA
Philosophy of AGTM Part 13

• To provide traffic management under the Safe System approach
• To refer to other Austroads Guides where content is best addressed including the:
  − Guide to Traffic Management
  − Guide to Road Safety
  − Guide to Road Design
• Guidance is limited to good practice rather than mandatory practice which is addressed in the Australian Standards
### Structure and key changes to AGTM Part 13

<table>
<thead>
<tr>
<th>Section</th>
<th>Change</th>
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<tr>
<td>1. Introduction</td>
<td>Minor update with new content</td>
</tr>
<tr>
<td>2. Safe Road Environment</td>
<td>Added material on safe mobility</td>
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<tr>
<td>3. Human Factors and the Need to Design and Manage Roads to achieve a Safe System</td>
<td>Update to reflect the Safe System approach</td>
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<td>4. Road Safety Engineering</td>
<td>Update to driver workload and the Safe System approach</td>
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<td>5. Safety Engineering of the road environment</td>
<td>Added new sections</td>
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<tr>
<td>Appendices</td>
<td>Major change – additional appendices</td>
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Section 1: Introduction

• Provides an introduction to the Guide Part
  − Puts the Guide Part in the context of the Guide to Traffic Management series

• Modified in order to link AGTM Part 13 to:
  − National road safety strategies
  − The Safe System approach
Section 2: Safe Road Environment

• Highlights the principles of a safe road environment and how the Safe System approach plays a role
• Provides further guidance on how to deliver a Safe System during road planning
• Added section on Safe Mobility
Section 3: Human Factors and the Need to Design and Manage Roads to Achieve a Safe System

• Discusses human factors and how they affect the design and management of the road to achieve a Safe System
• Restructure of content
• Section renamed from human factors and the road system
• Added information on the impact of Cooperative Intelligent Transport Systems (C-ITS) in a Safe System
Section 4: Road Safety Engineering

- Highlights the methods and approaches of creating a safe road environment
- Rearranged risk engineering concepts in line with the Safe System approach
  - Added more information on speed management
  - Added more tools on identifying safety deficiencies in the road network
- Added section of driver workload
Section 5: Safety Engineering of the Road Environment

- Highlights the elements of a road environment that need to be considered to make the road safe
- Added road elements for consideration
  - Non-roadwork Incidents
  - On-road public transport
  - Vehicle safety
- Engineering treatments to address specific crash types at specific locations
### Appendices – More usable

Table A 1: Safe road environment elements – standards and guidelines directory

<table>
<thead>
<tr>
<th>Safe road environment features</th>
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Key:
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- GRS: Guide to Road Safety
- GRD: Guide to Road Design
- GAM: Guide to Asset Management
- GPT: Guide to Pavement Technology
- AS 1742: Australian Standard: Manual of uniform traffic control devices
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Table A 1: Safe road environment elements – standards and guidelines directory

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## Appendices – More usable

### Table A 3: Pavement

<table>
<thead>
<tr>
<th>Safe road environment features</th>
<th>Road environment element</th>
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</table>
| **Warn** road users of any approaching substandard, unusual or complex features in the road environment that pose an unexpected elevated risk | Pavement (friction, roughness, rutting)  
Cross-section (lane widths, formation width, crossfall, superelevation) |
| **Inform** road users of the way ahead, and of the type of unusual conditions likely to be encountered |  |
| **Guide** road users along sections of a route and through unusual sections of a route |  |
| **Control** road users at conflict points or areas of conflict, and manage their speed |  |
| **Forgive** errant road user inappropriate behaviour or mistakes, with the severity of consequences being minimised | • GRS Part 6 Road safety audit  
− Outlines how to undertake a road safety audit to ensure safety in planning and design, taking into consideration elements such as the pavement |
|  | • GRS Part 8 Treatment of crash locations  
− Outlines the diagnosis and treatment of locations, taking into consideration factors such as pavement surface |
|  | • NZTA RSA  
− Outlines how to undertake a road safety audit to ensure safety in planning and design, taking into consideration elements such as the pavement |

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Appendices – More usable

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</table>
| **No surprise** to the road user, where reliable and consistent responses and performance may be expected | • GRS Part 6 Road safety audit  
  − Outlines how to undertake a road safety audit to ensure safety in planning and design, taking into consideration elements such as the consistencies in the road design  
  • NZTA RSA  
  − Outlines how to undertake a road safety audit to ensure safety in planning and design, taking into consideration elements such as the consistencies in the road design |
| **Controlled release** through avoidance of road user information overload | • GRD Part 4 Intersections and crossings: general  
  − Gives guidance for the design of cross-sections to enable controlled movement of vehicles, public transport, pedestrians and cyclists |
| **Repeat information** to ensure that crucial information is unlikely to be missed, overlooked or forgotten by road users |  |
| **Meet expectations** of the road user by ensuring similar situations are treated in a similar manner, based on their expectations built up from previous experiences | • GRD Part 4 Intersections and crossings: general  
  − Gives guidance on the design of cross-sections to ensure that they meet the expectations, based on previous experience, for vehicles, public transport, pedestrians and cyclists |

Table A 3: Pavement (continued)

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## Appendices – More usable

### Table A 3: Pavement (continued)

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| **Friction supply** through reasonable and predictable surface friction requirements, and facilitate recovery from emergencies | • GAM Part 5F Skid resistance  
  - Gives guidance on testing the skid resistance for pavement and decision support tools to ensure there is adequate friction supply  
  - GAM Part 5G Texture  
  - Gives guidance on testing the texture for pavement and decision support tools to ensure there is adequate friction supply  
  - GPT Part 7 Pavement maintenance  
  - Gives guidance on checking condition and maintenance measures to ensure that the pavement can supply required friction  
  - NZTA T10  
  - Gives guidance on testing the skid resistance for pavement and decision support tools to ensure there is adequate friction supply |
| **Rest and recuperation** areas for road users to avoid the effects of fatigue, particularly on longer trips on rural highways |  |
Appendices

Added:

• Safe System assessment framework
• Road fatalities and serious injuries
• Human factors
• Traffic management, road design and the driver
• The driving task
• Driver characteristics and behaviour
Embedding the Safe System approach into the Guide to Traffic Management

- NTM6021 Safe System in Austroads Guide to Traffic Management
  - Project has commenced
  - Expected completion: End 2018
  - Identify opportunities to embed the Safe System approach into the AGTM

Conclusion


• The latest version incorporates findings of recent Austroads research in particular around:
  – Strategies around road safety
  – Achieving a Safe System through:
    1. The planning process
    2. Infrastructure
    3. An assessment framework
    4. Speeds on urban and rural roads
Questions?

David Green
Senior Engineer
Network Operations
Congestion, Freight and Productivity

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E: david.green@arrb.com.au
# Upcoming Austroads webinars

<table>
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<td>21 November</td>
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<tr>
<td>Strategic Review of the Guide to Traffic Management</td>
<td>7 December</td>
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<tr>
<td>Development of National Mass Assessment Procedures for Oversize Overmass Vehicles</td>
<td>12 December</td>
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Thank you for participating