Road Planning and Design Manual
Edition 2: Volume 3

Supplement to Austroads Guide to Road Design
Part 2: Design Considerations

June 2017

The Department of Transport and Main Roads has, in principle, agreed to adopt the standards published in the Austroads Guide to Road Design (2015) Part 2: Design Considerations.

When reference is made to other parts of the Austroads Guide to Road Design or the Austroads Guide to Traffic Management, the reader should also refer to Transport and Main Roads related manuals:

- Road Planning and Design Manual (RPDM), and

Where a section does not appear in the body of this supplement, the Austroads Guide to Road Design – Part 2 criteria is accepted unamended.

This supplement:

- has precedence over the Austroads Guide to Road Design – Part 2 when applied in Queensland
- details additional requirements, including accepted with amendments (additions or differences), new or not accepted, and
- has the same structure (section numbering, headings and contents) as Austroads Guide to Road Design – Part 2.

The following table summarises the relationship between the Austroads Guide to Road Design – Part 2 and this supplement using the following criteria:

| Accepted: | Where a section does not appear in the body of this supplement, the Austroads Guide to Road Design – Part 2 is accepted. |
| Accepted with Amendments: | Part or all of the section has been accepted with additions and/or differences. |
| New: | There is no equivalent section in the Austroads Guide. |
| Not accepted: | The section of the Austroads Guide is not accepted. |

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### 3 Design Considerations

| 3.1 Factors affecting design decisions | Accepted with amendments |

### References

| References | Accepted with amendments |

### Commentaries

| Commentary 1 | Accepted with amendments |
| Commentary 2 | Accepted with amendments |
| Commentary 3 | Accepted with amendments |
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1 Design objectives

1.3 Nature and magnitude of transport demand

Additions

Refer to the Department of Transport and Main Roads (otherwise known as the “department” within this document) Guidelines for Assessment of Road Impacts of Development (GARID) and departmental traffic data as the primary reference for information related to traffic forecasting, estimates and so on.

1.4 Safety

1.4.3 Road safety audits

Additions

Road safety audits must be conducted in line with the department’s:

- Road Safety Audit Policy
- Road Safety Audit Policy – Supporting Guidelines, and

Road safety audit is a process intended to assist road authorities in improving road safety on their road network through the application of road safety engineering knowledge and experience.

Road safety audits on state-controlled roads can only be completed by a registered road safety auditor.

1.5 Community expectations

Additions

Add a new sentence to the first paragraph:

The department is committed to conducting honest, fair and respectful engagement with the community. Consequently, both positive and negative impacts of a project need to be communicated.

1.6 Reduced travel time and costs

Additions

Refer to the department’s Cost-benefit Analysis Manual for guidance on how to calculate costs.

1.7 Reduced freight costs

Additions

Refer to the department’s Cost-benefit Analysis Manual for guidance on how to calculate costs.

1.9 Provision for cyclists and pedestrians

Additions

Refer to the department’s:

- Manual of Uniform Traffic Control Devices (MUTCD)
- Traffic and Road Use Management (TRUM) Manual
- Road Planning and Design Manual (RPDM)
• Easy Steps: A toolkit for planning, designing and promoting safe walking
• Queensland Cycle Strategy
• Cycling Infrastructure Policy, and
• Principal Cycle Network Plans.


2 Context-Sensitive design

Additions

Refer to RPDM Volume 3, Part 1 for the latest guidance on the Design Domain concept.

2.4 Road characteristics and use

2.4.1 Functional classification and use

Differences

All text under the sub-heading “Functional Classification and Use” of Austroads Guide to Road Design – Part 2 is for general information purposes only: it is not applicable for Queensland state-controlled roads.

2.4.2 Factors that influence design standards

Additions

Road factors

All instances of “(Austroads 2013a)” under the sub-heading “Road Factors” of Austroads Guide to Road Design – Part 2 is replaced with the following “(Austroads 2010a)”.

2.4.3 Speed parameters

Differences

“Austroads (2013a)” is to be replaced with “Austroads (2010a)”.

3 Design Considerations

3.1 Factors affecting design decisions

Differences

In “Table 3.1 Checklist for design considerations” under the design consideration row titled “Risk Management” modify the likely source column to only state “All stakeholders” rather than “Independent safety audit team via the project sponsor”.

Road Planning and Design Manual – Edition 2: Volume 3, Transport and Main Roads, June 2017 5
References

Transport and Main Roads publication references refer to the latest published document on the departmental website (www.tmr.qld.gov.au).

Additions

Austroads (2014). Cycling Aspects of Austroads Guides, Austroads, Sydney, NSW


Department of Transport and Main Roads (2013). Cycling Infrastructure Policy, Brisbane, QLD

Department of Transport and Main Roads (2005). Easy Steps: A toolkit for planning, designing and promoting safe walking, Brisbane, QLD

Department of Transport and Main Roads (2006). Guidelines for Assessment of Road Impacts of Development (GARID), Brisbane, QLD

Department of Transport and Main Roads. Manual of Uniform Traffic Control Devices, Brisbane, QLD

Department of Transport and Main Roads (2009). Principal Cycle Network Plan – Far North Queensland, Brisbane, QLD


Department of Transport and Main Roads (2008). Road Safety Audit Policy, Brisbane, QLD

Department of Transport and Main Roads. Road Safety Audit Policy Supporting Guidelines, Brisbane, QLD

Department of Transport and Main Roads (2009). South East Queensland Principal Cycle Network Plan, Brisbane, QLD

Department of Transport and Main Roads. Traffic and Road Use Management Manual (TRUM), Brisbane, QLD
Commentary 1

Differences

The last sentence in the first paragraph of Section C1.1 is replaced with the following “Designing for operations improves the integration of operational considerations throughout the project development lifecycle and will assist in the prevention of the following.”.

The first sentence in the last paragraph of Section C1.1 is replaced with the following “Some advantages of incorporating operations into the design process include.”.

Modify “Table C1 2: Example of arterial management design considerations/opportunities”, under the first dot point for the “Context sensitive solutions” row to read “When constructing or upgrading footpaths, consider the provision of other pedestrian friendly infrastructure such as pedestrian ramps, pedestrian operated signals and associated hardware and conduits for these treatments.”.

Commentary 2

Differences

Delete the first and last paragraphs. Also delete the first sentence in the fourth paragraph that states “These limitations require a change in the approach to road design in order to improve the safety performance of roads”.

Commentary 3

Additions

- traffic volume
- driver behaviour, and
- driver alertness.

Commentary 4

Additions

- roadside hazards
- traffic volume
- driver behaviour, and
- driver alertness.

Commentary 5

Additions

If considering HOV lanes for the state-controlled road network past departmental experience must be considered. HOV lanes have compliance issues, and the number of person’s actively participating in ridesharing may not reach a level that will result in congestion improvements.

Commentary 6

Differences

Delete the last paragraph and its adjoining set of dot points.