

NZ Supplement to Austroads Part 14: Bicycles

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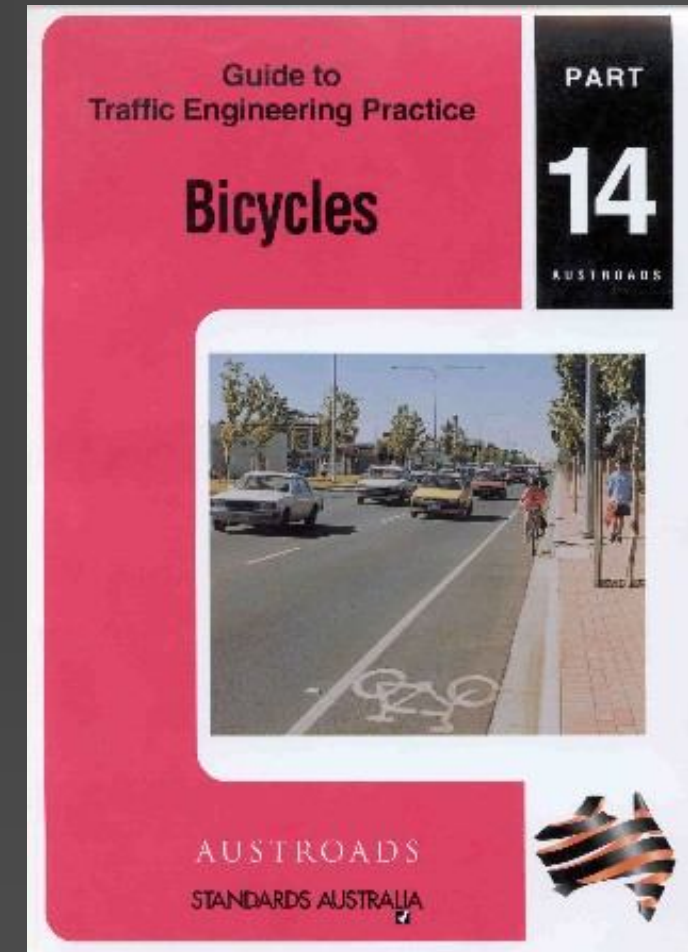
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Overview

- NZ Design Guidelines
- Relationship AUSTRROADS *Part 14* & NZ Supplement
- A Word of Warning
- Relevance to NZ Signal Design

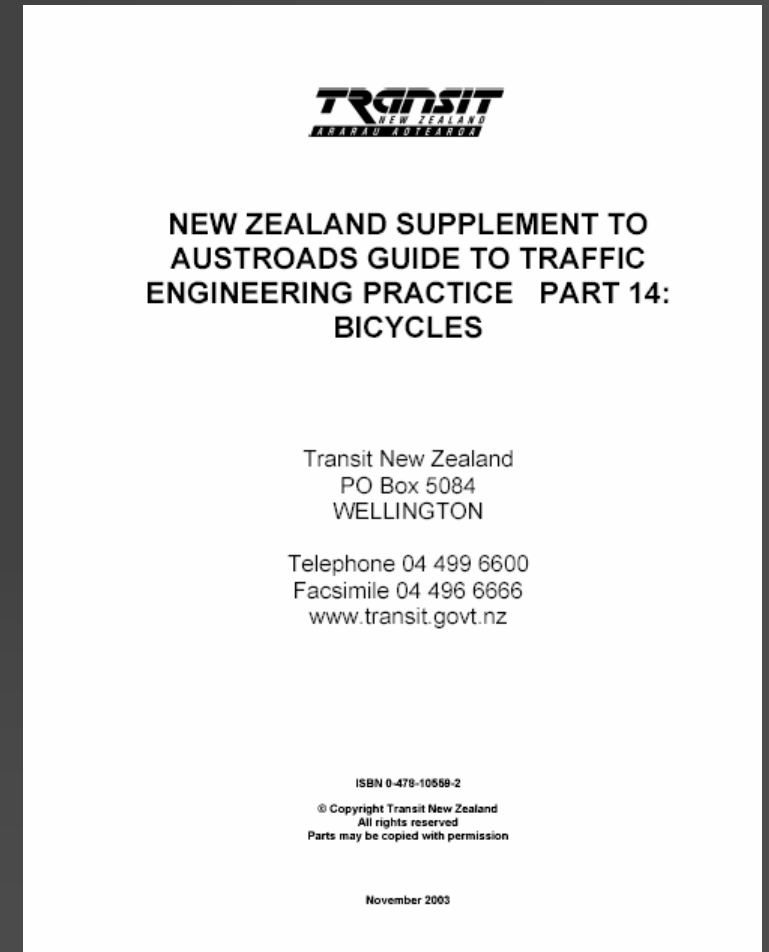
Design Guidelines (i)

- AUSTRROADS
Part 14: Cycling (1999)
 - Most widely used in NZ
 - Parts not relevant for NZ
 - Traffic Regulations
 - Traffic Control Devices
 - Inconsistency with agreed best practice



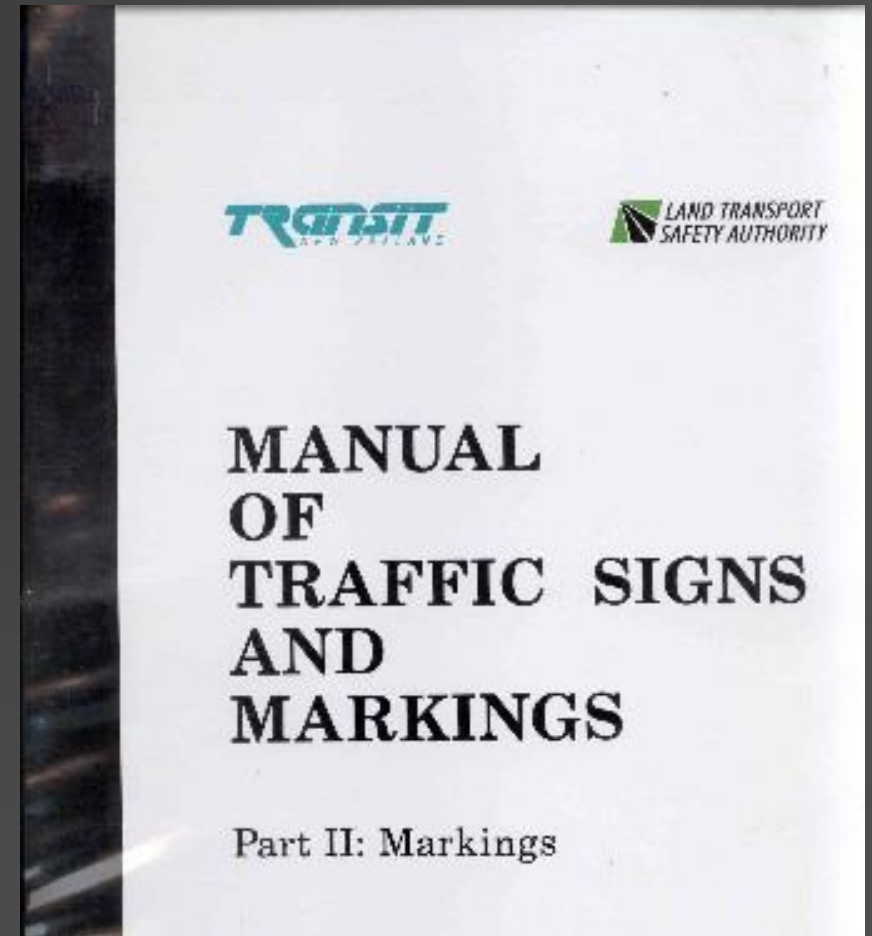
Design Guidelines (ii)

- Transit NZ (2003)
Cycling Design Guide (CDG)
 - Developed on behalf of RCA Forum
 - Overseen by Cycling Standards Advisory Group
 - MWH (Andrew Macbeth)
 - Dec 03 Authority ratification



Design Guidelines (iii)

- Transit NZ / LTSA
MOTSAM
 - Both Part I and II will be updated for compliance with
 - TCD Rule (incorporation by reference)
 - NZ Supplement



How to use the NZ Supplement

- Same structure as AUSTROADS *Part 14*
 - NZ Supplement is 'first port of call'
 - AUSTROADS *Part 14* is either confirmed, or
 - Information relevant to NZ given as replacement in Supplement

5.4.2.4 'Hook' Turns

Supplementary text: Insert new sentence before first paragraph as follows:

Note: Hook turns are currently undergoing testing by the Christchurch City Council and LTSA (see Figure 5-16 (a) below). Designers should check with LTSA before considering new installations



Figure 5-16 (a) Hook Turn Trial in Christchurch

Note: that green coloured surfacing is now recommended for use in New Zealand – see Section 9.7)

5.5 Unsignalised Intersections

Refer to GTEP Part 14 except as follows:

5.5.1 Left Turn Slip Lanes

It should be noted that the examples illustrated in GTEP Part 14 Figures 5-24 and 5-26 have poor geometry for cyclists, with the design encouraging high-speed manoeuvres by motor vehicles. As noted in Figure 5-24, “consideration should be given to reconstructing the slip lane to intersect at a higher angle”. This comment could apply equally well to Figure 5-26.

Designers are also referred to New Zealand’s RTS 9 – Guidelines for the Signing and Layout of Slip Lanes (1993) for further guidance on slip lanes.

5.5.2 Roundabouts

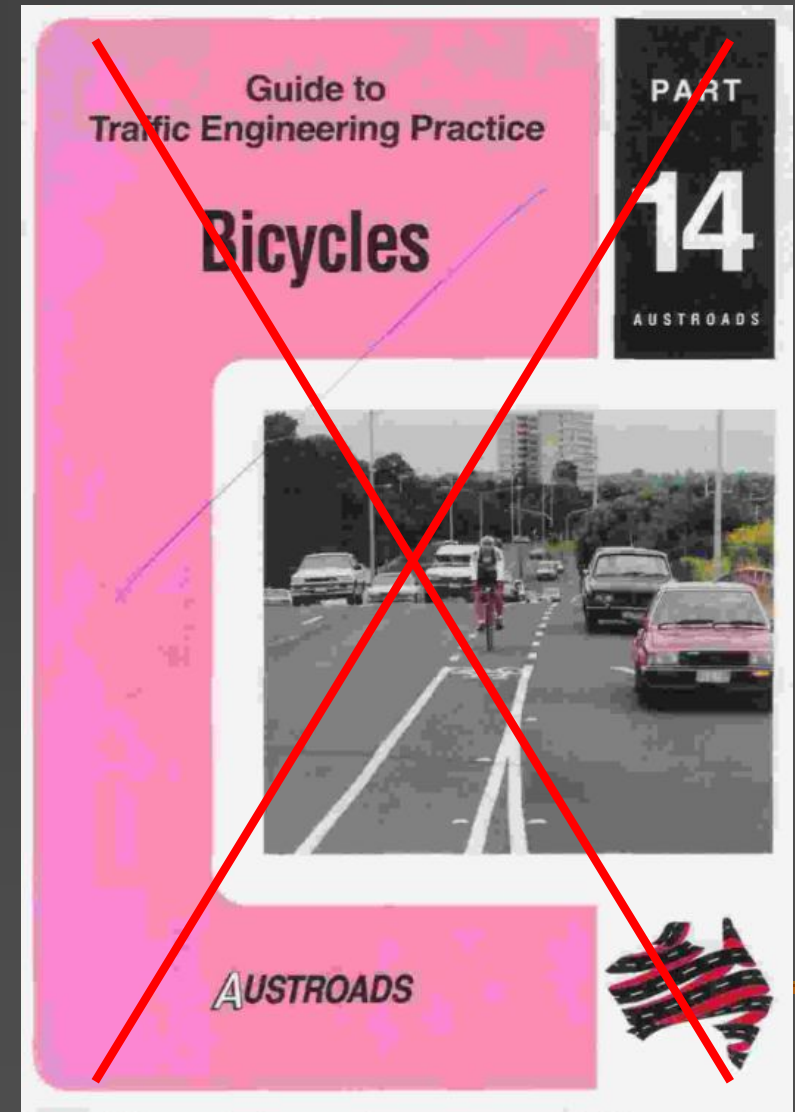
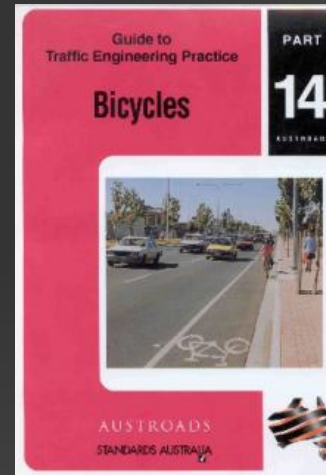
Supplementary Text: Insert new paragraph before existing text as follows:

The optimal design of roundabouts to take account of the needs of cyclists is undergoing constant refinement and evolution, in New Zealand and overseas. Designers are encouraged to seek expert advice for roundabout design whenever cycle traffic is a factor. The principal concerns for cyclist safety are with multi-lane roundabouts and those

yielding traffic moving at high speed.

A Word of Warning

- Must use the NZ Supplement with AUTROADS *Part 14* (**1999**)
- AUTROADS *Part 14* (**1993**)
 - Different structure
 - Out of date

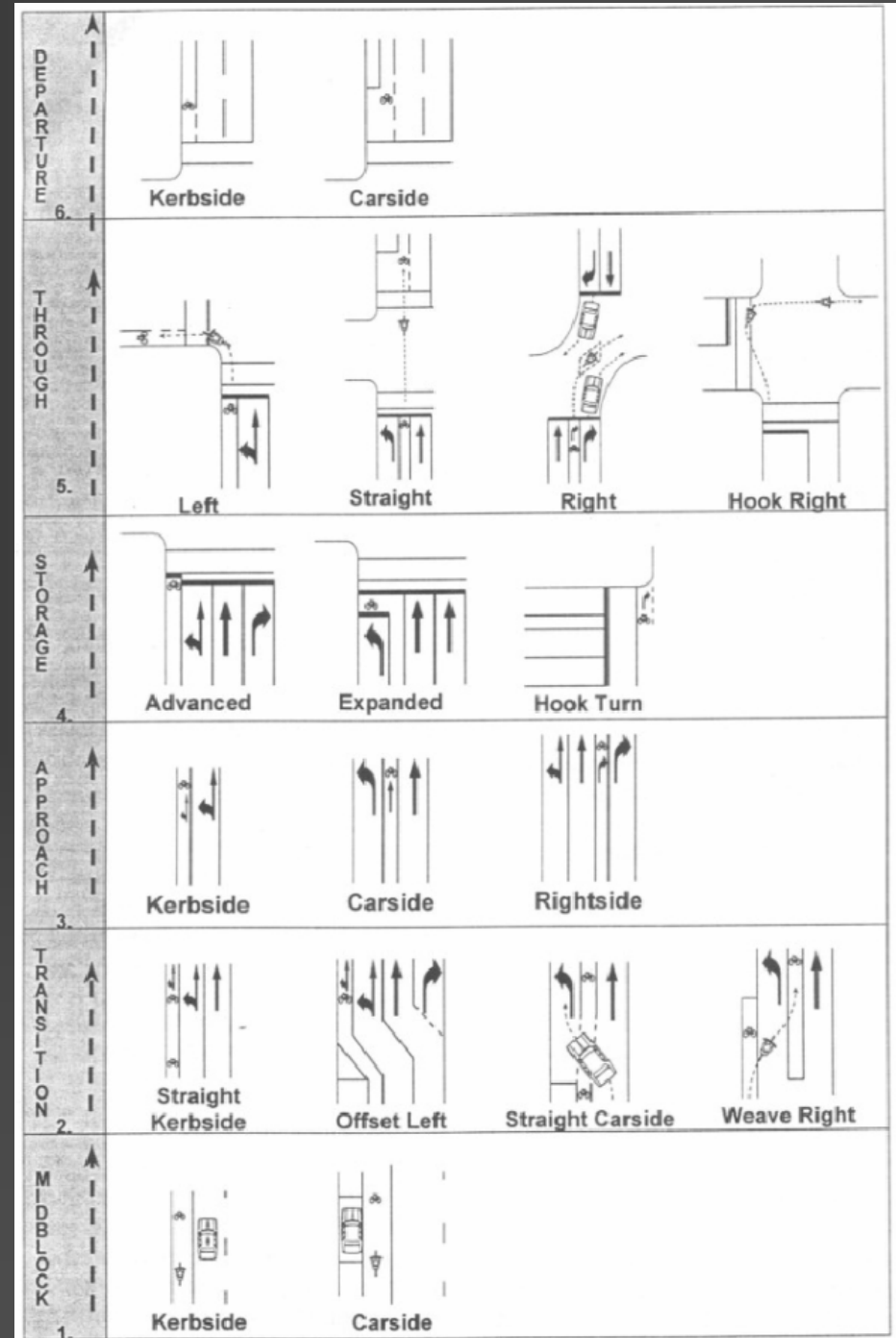


Relevance to Traffic Signal Design – Overview

- Facility Continuity
- Cycle Lane Widths
- Advanced Stop Lines and Approach Cycle Lanes
- Avoidance of ‘Critical Widths’ of Shared Lanes
- Line Styles and Surface Colour
- Hook Turns

Facility Continuity

- Cumming's six elements of continuity
- Intersections more important than midblock
 - Five of the six elements relate to intersections



Cycle Lane Widths

- Increase in cycle lane widths with NZ Supplement compared to AUSTROADS *Part 14*
- 1.5m is desirable minimum width at intersections

Advanced Stop Lines & Approach Cycle Lane

- Approach cycle lane recommended at intersections
- Advanced Stop Line (ASL) is standard treatment
- Advanced Stop Box is alternative to ASL



'Critical Widths' of Shared Lanes

- 4.2m wide or greater
 - Cyclists can easily share the lane with motorists
- 3.0m wide or less
 - Cyclists can “take” the lane
 - But motor vehicle speeds must be low (e.g. right turning lanes)
- Avoid lane widths between 3.1m and 4.1m
 - When motorists and cyclists must share

Line Styles and Surface Colour

- Solid line style for cycle lanes
 - Replaces broken linestyle
- Broken line style where motorists have to cross
 - Diverge area
 - Slip lane entries
 - Side streets
- Green is recommended surface colour



Hook Turns

- Official LTSA trial in Christchurch
- Check with LTSA before considering new installations



Recommendations

- Get AUSTRROADS *Part 14* (1999)
- Adopt **NZ Supplement**
- Use NZ Supplement for **New Designs** and **Upgrades**