

Meeting at 9:00 on 5 March 2015
Arthurs Pass Boardroom, NZTA Offices
Airport Business Park, Unit C, 92 Russely Road
Christchurch

Attending:

- Tim Hughes National Traffic and Safety Engineer, NZTA
- Steve Dejong Traffic Engineer, Christchurch City
- Paul Barker Safe and Sustainable Transport Manager, Wellington
- Sandi Morris Transportation Planner, Palmerston North City
- Kirsty Horridge Network Engineer, Hamilton City
- Glen Koorey Civil and Natural Resources Engineering School, Cant.
- Gerry Dance Principal Advisor, Network Optimisation, NZTA
- Glenn Bunting Network Manager, NZTA
- Mark Haseley Principal Transport Planner, NZTA
- Sandy Mills Senior Transportation Planner, Flow (for AT)
- Wayne Newman RCA Forum Research & Guidelines Group (secretary)
- Axel Wilke Senior Transport Engineer, ViaStrada [5 only]
- Jeanette Ward Principal Transportation Engineer, Abley [5 only]
- Wai Kit Wong (Ben) researcher for markings trials [3 only]

Apologies:

- Carl Whittleston Lets Go Project Manager, New Plymouth District
- Clare Cassidy Planning Engineer, Transport, Tauranga City
- Bruce Galloway Road Corridor Advisor, Tauranga City [resigned]
- Dougal List National Manager Cycling, NZTA
- Matthew Rednall Manager-Community Transport, Auckland Transport
- Malcolm McAulay Senior Walking & Cycling Engineer, AT
- Susan Lilley Transportation Planner, Dunedin City
- Claire Sharland Asset Manager Transportation, Taupo District
- Richard Bean Senior Engineer, NZTA

1. Introductions and apologies

Introductions and apologies were taken. Mark Haseley and Sandy Mills were welcomed. The resignations of Bruce Galloway and Matthew Rednall were noted and their replacement by Clare Cassidy and Kathryn King respectively recorded. The contribution to the group of Matthew Rednall and AT, in particular, over the past two years was noted with appreciation.

2. Previous meeting and actions arising

The minutes of the meeting on 27 November 2014 had been circulated and agreed to be a true and accurate record. All other actions arising from the previous meeting were taken under later agenda items. Comment on the draft *Christchurch City Council Bicycle Network Sign Design Manual, September 2014*, and *Draft Bicycle Network Signage Plan* was the only item arising taken separately.

Steve Dejong reported that Richard Bean had commented in detail on both documents. As Warren Solomon has been working on the Austroads and CCC cycling signage guidelines at the same time, the CCC documents will significantly inform the Austroads guidelines. A NZ national guide based on the CCC documents will be likely to be closely consistent with Austroads.

The principal gap within the guidelines is provision for way-finding signage for pedestrians. CCC has concluded that routes most suitable for cyclists will, in most cases, not be the routes that are ideal for pedestrians. The nature of way-finding signage for pedestrians is also likely to be significantly different from cycling signage, too.

The meeting agreed that pedestrian way-finding sign design remained an area in which national guidance was wanted and further work is needed.

ACTION: pedestrian way-finding sign design national guidance to be on the agenda for next meeting; members to present current practice examples.

3. Markings trials

New 'Sharrow' markings

The reports from the trials of 'sharrow' markings in Auckland, Palmerston North, Wellington and Nelson had been circulated. The results from Dunedin had not been circulated, but were reported to correlate closely with the other trial findings.

Wai Kit (Ben) Wong presented a summary of the results from Nelson and Palmerston North. These indicated that the effect of the 'sharrow' marking on motorists was more marked than on cyclists, with motorists moving further to the right in response to the markings than cyclists. There was, nevertheless, a measurable shift by a significant proportion of cyclists in the PNCC trials further to the right in the lane.

The data appeared to indicate two modes of behaviour, with some cyclists remaining closer to the kerb while another group appeared to cluster about 4m from the kerb. The likely explanation for this was the presence or absence of parked cars along the route.

Every trial observed reduced vehicle speeds in response to the markings. This is a clear indication that the marking was effective in communicating with its principal target audience. It is also an unintended consequence that delivers significant potential safety gains. A reduction in vehicle speed of 1kph is roughly equivalent to a reduction in risk of 4%; Paul Barker reported that the trial on Featherston Street observed an average speed reduction from 42kph to 36kph.

The perception surveys of the 'sharrows' appear to indicate the public saw the marking as different from the present M2-3 symbol and having a different meaning. The meeting agreed that a specific question on the difference should be included in post-implementation surveys.

A number of the trial sites appeared to test the upper limits of traffic speed and vehicle numbers for encouraging cyclists into the lane, but other sites raised questions about whether the traffic environment required any extra marking to achieve this. The meeting agreed again that very strong guidelines on the use of

'sharrow' markings will need to be in place before the new symbol becomes legally available.

LANE vs white M2-3 symbol on a green background

The trial results have not been as clear-cut on the most suitable means of clearly differentiating the present M2-3 symbol from the proposed 'sharrow' marking using two chevrons over the M2-3 symbol. It remains in debate whether the addition of the chevrons and placement of the marking within standard unspecified traffic lanes is sufficient to distinguish 'sharrows' from the present marking for cycle lanes.

It was agreed that more work needs to be done by each trialling authority to assess the cost implications of each option, taking into account some of the already observed practical difficulties in accurately remarking relatively unwieldy markings in very constrained margins within narrow cycle lanes. Sandi Morris and Steve Dejong both reported that this was a significant factor for them not favouring adoption of "LANE" with the M2-3 symbol.

Gerry Dance reminded the meeting that the primary reason for trialling "LANE" was because the alternative that was most favoured in every public perception survey, the M2-3 symbol on a green background, is already recognised as significantly increasing the cost of marking a cycle lane. Glenn Bunting noted, however, that if "LANE" or a green background must be added to the M2-3 symbol to distinguish it legally from a 'sharrow', at the moment it appears that the green background has wider public acceptance and practical advantages in the longer term.

ACTIONS:

(1) A specific question on the difference between 'sharrows' and the present M2-3 symbol and their meaning shall be included in post-implementation surveys where these are undertaken.

(2) AT will be asked whether it is prepared to continue work with Flow to develop draft national guidelines on the use of "sharrow" markings.

(3) Each trialling authority to assess the cost implications of adding "LANE" to the M2-3 symbol against placing the symbol on a green background, taking into account practical difficulties in accurately remarking the markings.

4. Rule changes

A list of all currently known proposed changes to the Road User Rule had been circulated. The purpose of the list was to identify whether there were any gaps.

Glenn Bunting explained that the number and inter-connectedness of the changes being proposed around cycling suggests that an omnibus cycling package of rule changes might have a better chance of success than attempting to fit cycling-related changes within the Omnibus Rule Review. Such a package of cycling Rule changes would be unlikely to create a delay of more than six months in these changes taking effect, compared to attempting to include these within the Omnibus Review.

Although Gerry Dance confirmed that there is no formal acceptance of the concept of a dedicated cycling package as yet, the meeting agreed with Sandy Mills that more work still needed to be done on perceptions and costs before the trial results could support a Rule change and this work could not be completed within the timeframe for a recommendation to be included within the Omnibus Review.

The meeting agreed that feedback on the list would be provided to Gerry Dance by 31 March.

ACTION: All members to provide feedback on the circulated list of all currently known proposed changes to the Road User Rule by 31 March 2015.

5. National cycling design guidance

Mark Haseley introduced Jeanette Ward and Axel Wilke to the meeting as the consultants commissioned to provide the design guidance and explained that the project was driven by recognition that the present infrastructure is inconsistent and unfit for purpose. It is intended to have a coherent framework established within six months.

Jeanette Ward explained that AMIG is seen as a technical reference group on cycling issues, but it is not regarded as representative of non-cyclist groups and the project team is still unsure of how to engage with these groups. As TRAFINZ is already active in this area, contact through that group might be a conduit to those others.

The project will include a literature review to identify international best practice and a survey to complete a gap analysis, including where current guidance lacks clarity, or consistency, or is overly onerous, as well as where none exists at all.

A draft stakeholder survey was circulated for comment. It was agreed that the survey needed both a fuller introduction and a wider focus than purely cycling, to engage asset managers who would otherwise not respond to a "cycling survey". Multiple conduits to the target audience through IPENZ, the RCA Forum and LG Online will be used to give the survey sufficient coverage.

It was agreed that AMIG would need more frequent meetings during the duration of this project to enable it to have a useful involvement and that the next meeting could be no later than the first week of May.

ACTION: Draft stakeholder survey will be redrafted with a fuller introduction and a wider focus than purely cycling, to engage asset managers who would otherwise not respond to a "cycling survey", and circulated to members before 31 March 2015.

6. Intersection trials

The meeting agreed that research was needed to identify the problems that exist at intersections, the desired outcomes and the potential effects of interventions. Lack of data and gaps in understanding could be increasing risks, but overseas data cannot readily fill this gap, because crash rates, cyclist numbers, motorist culture, etc., are not applicable to NZ.

A matrix of facility vs means of control to first identify the present gaps, and then a toolbox of options to allow an appropriate response is needed. It was

agreed that work on this could not wait until completion of the national design guide project.

ACTION: Members will begin to identify issues for research, situations for conflict analysis and innovative interventions for trial, with the aim of agreeing a consistent methodology for a range of trials around the country, for inclusion on the agenda of the June/July AMIG meeting.

Small cycle signals trial application

Steve Dejong explained that the new networks will intersect the existing networks and there were issues around the number of lanterns that would be required at major intersections. The size and placement of signals is legally defined and there is no legal ability to define directions for cyclists. What is proposed is a lower, smaller signal directed only at cyclists.

Glenn Bunting queried the effect on other road users, unable to see this signal, of seeing cyclists going against the signal that they could see.

The meeting accepted that separate signals were in use extensively overseas for separate facilities, and there is a need to give different signals to different modes at intersections, but it must be demonstrated that the available tools do not provide a solution before a trial of new tools is undertaken.

It was agreed that Via Strada would be asked to review the trial application against the Traffic Note 10 criteria. The reviewed application would be put on the agenda for the TCD Steering Group meeting on 30 March.

ACTION: CCC will ask Via Strada to review the trial application against the Traffic Note 10 criteria to show the problem, why existing solutions fail, why the trial is needed, what problems it might create and what alternative solutions might be available, for the application to go the TCD Steering Group meeting on 30 March.

7. Other activities

a. *Delineators*

Glenn Bunting reported that Opus has been asked to undertake a stocktake of delineators, beginning this month. The results should inform an update of the TCD Manual and might need to be reflected in a change to the RUR. The meeting noted that there is no specification for a delineator and no consistency in what is currently being used, but better guidance for installers appears to be needed to achieve installations that meet manufacturers' design specifications.

b. *Cycle crossings and joint crossings*

The meeting discussed the problem of getting cyclists across streets. There is a need for an equivalent of a zebra crossing for cyclists. Cyclists are known to resist dismounting to use zebra crossings. Replacing a zebra crossing with a signalised crossing can result in a significant loss of level of service for cyclists.

The meeting agreed to progress applications for trials of cyclist crossings using "elephant's feet" or "shark's teeth" markings. The green blocks chequerboard of "elephant's feet" is possibly more likely to be intuitively perceived as a cyclist's zebra crossing. This marking could be defined within the TCD Manual without requiring amendment of the RUR.

c. *Advanced, Basic, Child – ABC – classification*

Classifying cycling infrastructure according to the three classes of cyclist now recognised for design purposes by the FHWA – Advanced, Basic or Child – seems counterintuitive, with the most challenging coming first. A consistent level of service descriptor that reflects the three levels of cyclist skill is likely to be better understood.

d. *Shared paths and shared spaces design*

The meeting noted that Opus is working on this issue. There is a need for good data on what is regarded as an acceptable level of service for all users. Can cyclists use a shared path as though it is a cycling facility while pedestrians use it as a pedestrian facility without creating conflict? The PPDG is not seen as providing enough guidance on optimal widths of shared paths. Definition of shared paths, spaces and zones might make these tools more flexible.

ACTION: Members will progress applications for trials of cyclist crossings.

8. Way forward

a. *Work programme*

It was agreed that the programme adopted on 19 June 2014 had been ambitious in its reporting dates, but is otherwise still being delivered.

b. *Meeting programme for 2015*

As discussed under item 5, AMIG will need more frequent meetings during the national cycling design guidance project to enable it to have a useful involvement and may need to meet every second month until September.

Summary of Actions Arising

2. (1) Pedestrian way-finding sign design national guidance to be on the agenda for next meeting [WN]; all members to present current practice examples [ALL].

3. (1) A specific question on the difference between 'sharrows' and the present M2-3 symbol and their meaning shall be included in all post-implementation surveys where these are undertaken [AT, PNCC, WCC, NCC, DCC as appropriate].

3. (2) AT will be asked whether it is prepared to continue work with Flow to develop draft national guidelines on the use of "sharrow" markings [GD].

3. (3) Each trialling authority to assess the cost implications of adding "LANE" to the M2-3 symbol against placing the symbol on a green background, taking into account practical difficulties in accurately remarking the markings [AT, PNCC, WCC, NCC, DCC].

4. (1) All members to provide feedback on the circulated list of all currently known proposed changes to the Road User Rule by 31 March 2015 [ALL].

5. (1) Draft stakeholder survey for national cycling design guide will be redrafted with a fuller introduction and a wider focus than purely cycling, to engage asset managers who would otherwise not respond to a "cycling survey", and circulated to members before 31 March 2015 [GD].

6. (1) All members will begin to identify issues for research around intersections, situations for conflict analysis and innovative interventions for trial, with the aim of

agreeing a consistent methodology for a range of trials around the country, for inclusion on the agenda of the June/July AMIG meeting [ALL].

6. (2) Via Strada to review the trial application against the Traffic Note 10 criteria to show the problem, why existing solutions fail, why the trial is needed, what problems it might create and what alternative solutions might be available, for the application to go the TCD Steering Group meeting on 30 March [CCC].

7. (1) All members will progress applications for trials of cyclist crossings [ALL].