

**MINUTES: Wednesday 29 May 2019 – 9.00 am**  
**Meeting Room 5.16, NZTA Offices, Majestic Centre, 100 Willis St, Wellington**

**Attending**

- Paul Barker, Network Improvements Manager, Design & Place Planning, Wellington City
- Adam Beattie, Technical Lead, Active Modes, Network Management, AT
- David Brown, Traffic and Safety Engineer, New Plymouth
- Glenn Bunting, Manager Network Safety, Safety and Environment, NZTA
- Simon Cager, Senior Project Engineer, Hutt City
- Gerry Dance, Principal Advisor, System Design & Delivery, NZTA
- Steve Dejong, Traffic Engineer, Christchurch City
- Mark Edwards, Senior Engineer, Safety, Health & Environment, NZTA
- Tim Hughes, Principal Safety Engineer, System Design & Delivery, NZTA
- Simon Kennett, Senior Multi-modal Specialist, System Design & Delivery, NZTA
- Glen Koorey, Director, ViaStrada, representing Transportation Group NZ
- Chris Lai, Transportation Planner, Palmerston North City
- Wayne Newman, (secretary)
- Eynon Phillips, Strategic Transport Engineer, Hastings District
- Hjarne Poulsen, Transportation Team Leader, Dunedin City
- Kelera Qaraniqio, Network Engineer, Hamilton City
- Ina Stenzel, Principal Specialist – Walking and Cycling, AT

**Guests**

- James Wratt, graduate engineer, NZTA
- Claire Pascoe, Lead Adviser, Urban Mobility, NZTA (items 4, 5, 6)
- Hamish Mackie, Director, Mackie Research & Consulting (items 4, 5, 6, 8 and 10)
- Samantha Watson, Senior Policy Adviser, NZTA (item 8)
- Suzanne Gledhill, Legal Counsel, NZTA (item 8)
- Lorelei Schmitt, Senior Multi-modal Specialist, System Design & Delivery, NZTA (item 10)
- Elizabeth Claridge, Senior Advisor, Travel Choice & Behaviour, NZTA (item 11)
- Samantha Stanley, Service Designer, NZTA (item 11)
- Anna Blomquist, Team Leader, Transport Safety Education, Wellington City (item 15)
- Hugh Wilson, Transport Choice Adviser, Wellington City (item 15)

**Apologies**

- Claire Sharland, Asset Manager Transportation, Taupo District
- Andy High, Senior Engineering Officer, Nelson City
- Jodie Lawson, Sustainable Transport Team Leader, Rotorua Lakes
- Nick Marshall, Team Leader-Road Safety & Traffic Engineering, Northland Transport Alliance
- Ethan Young, Network Engineer, Hamilton City

## **A G E N D A**

1. Introductions, apologies and H&S briefing
2. Confirm amended Minutes of 28 February 2019
3. Actions arising - venue & possible site tour for 28/11/19 meeting
4. Innovating Streets for People project
5. National Dragon's Teeth TCD trial
6. Flashing LED Belisha Beacons
7. Traffic Resolutions
8. Accessible Streets Rule changes
9. Quiet Street definition; Omnibus Rule changes; Defining draft minimum guidance for delineation of cycle lanes
10. Development of NZ Public Transport Design Guidelines
11. Cyclist Code Update Project
12. Cycling Network Guidance update programme
13. Shared path conflict zones – Glen
14. Shared path marking Rule changes – Simon Kennett
15. Supplementary signage for shared and segregated pathways – Paul Barker
16. Acceptance and naming of national design guides
17. How AMIG submits proposed changes to the TCD Steering Group
18. Threshold sign for Sharrow zone or 'Greenway' or Quiet Street
19. Use of Sharrow marking in shared lane for left-turning traffic
20. Use of green outside of Special Vehicle Lanes - Glen
21. Designs: separated cycle path with 1:3 kerb; Protected intersection; Platform paired crossing across 3 traffic lanes - Ina Stenzel
22. AT Accessibility Assessment framework – Ina

## **ACTIONS**

1. Steve Dejong, Adam Beattie, Paul Barker, Hjarne Poulsen and Simon Cager to coordinate with Claire Pascoe on participating in a national trial of 'dragon's teeth' markings. Claire will need to confirm interest of Tauranga in participating.
2. Action for all group members to provide feedback on any of these documents by mid-June:
  - the summary of all CNG tasks;
  - the draft content on contra-flow cycleways;
  - the draft on Access Control Devices;
  - the draft guidance on two-way path crossings of commercial accesses;
  - the draft on bike parking guidance;
  - the draft technical note on heritage considerations;
  - the discussion document on marking conflicts in shared areas.
3. Action for Adam Beattie, Paul Barker and Steve Dejong to coordinate with Simon Kennett on testing options developed by AT to update the style of the behaviour modification markings.
4. Gerry Dance and Simon Kennett to coordinate ensuring that every document that has been adopted as a national design guide is checked to remove any notation or attribution that detracts from this status, and transfer of the IP in any document still held by the original consultants or contracting authority to the Agency.
5. Mark Edwards and Tim Hughes to provide information on "Greenway" threshold sign to Claire Pascoe.
6. Action on whole group: to supply photos of different uses of colour outside of a Special Vehicle Lane with the rationale for doing so. Provide to Gerry Dance and Simon Kennett with copy to Glen Koorey.

## NOTES

### 1. Introductions, apologies and H&S briefing

Introductions were made, Chris Lai and Hjarne Poulsen were welcomed to the group and Claire Pascoe and Hamish Mackie were welcomed back. Gerry Dance provided the H&S briefing.

### 2. Confirmation of Minutes of 28 February 2019

The draft minutes circulated following the previous meeting were confirmed with amendments to reflect the extensive feedback received on several key points.

### 3. Actions arising

Only one action was taken, to decide a venue for the 28 November 2019 meeting and whether to include a site-visits tour. Hjarne Poulsen invited the group to meet in Dunedin, with a site-visits tour on 29 November, and this was accepted. Action for Gerry, Wayne and Hjarne to coordinate arrangements.

### 4. Innovating Streets for People Project Update

Claire Pascoe provided an update on progress with this project since the previous meeting, explaining that work was proceeding with a number of case studies and the project team was aware of some formal trials and some potential trials where national coordination would be beneficial. Hamish Mackie identified two potential trials for group members:

- A test of perception and effect of 'Dragon's Teeth' markings; and
- Adding pedestrian-activated flashing lights at a zebra-crossing.

### 5. National Dragon's Teeth TCD trial

'Dragon's teeth' are familiar to practitioners from their use in the UK as threshold markings for reduced speed zones and in Australia to mark school zones. Their effect on NZ roads needs to be assessed to see if they could create a perception of being within a different zone for drivers and whether this would translate into modified speed behaviour. The Innovating Streets for People Project would support and coordinate a national trial across multiple sites and authorities to test conscious awareness and unconscious speed reduction.

Interest in participating in such a trial was recorded from Christchurch, Auckland Transport, Wellington, Dunedin, Lower Hutt and Tauranga. It was agreed that the design of the trial would need to combine the 'dragon's teeth' with existing measures in order for the road to be self-explanatory and that the optimum length for any "dragon's teeth zone" as well as for the spacing, both along and across the traffic lane, should be explored. The appropriate speed environment also needs to be tested. The most cost-effective means of marking 'dragon's teeth' was discussed and the use of heat-applied yellow triangles to mark the location of fire hydrants was noted as an analogous current marking technique, although white was agreed to be the colour used for the trial.

Actions for Steve Dejong, Adam Beattie, Paul Barker, Hjarne Poulsen and Simon Cager to coordinate with Claire Pascoe. Claire will need to confirm interest of Tauranga in participating.

### 6. Flashing LED Belisha Beacons

Pedestrian-activated flashing lights at zebra crossings are common in the USA. Hamish noted that a test of using a pedestrian-activated flashing Belisha beacon to alert drivers to the presence of a pedestrian at a zebra could be done within the current Rule. Group members had strong misgivings about such a trial. Where automatic detectors have been installed, they have consistently failed to be consistent and reliable, especially for smaller pedestrians and those moving quickly – such as children. Having lights begin flashing as the pedestrian arrives at the crossing could encourage the pedestrian to enter the road immediately, giving motorists insufficient time to react. Providing a mechanism by which a pedestrian activates a light and pauses for the required time to allow motorists to react and stop is already available in signal-controlled crossings. Having some zebra crossings alert motorists to the presence of pedestrians by a flashing beacon could increase the risk for pedestrians at every zebra where an activated beacon was not present, and motorists were not alerted.

The group agreed that a potential pilot available within the current Rule would be to increase the frequency at which a beacon flashed and the luminescence, but this did not address the identified concerns or practical issues, such as replacing the fluorescent disc with a beacon able to measure ambient light or provided with a permanent power supply separate from street lighting. It was agreed that adding flashing lights to zebra crossings offered insufficient improvement in pedestrian safety in the event that a motorist failed to stop and insufficient inducement for motorists to do so, compared with other available measures, such as tables and humps.

## **7. Traffic Resolutions**

This item was deferred to the next meeting.

## **8. Accessible Streets Rule changes**

Simon Kennett introduced Samantha Watson and Suzanne Gledhill, who discussed and sought feedback on practical considerations for a range of potential changes to the Rules still being considered for recommendation to Ministers.

## **9. Brief Updates**

### **a. Quiet Street definition**

Simon Kennett explained that the opportunity to include a definition of “quiet street” within the subset in RAMM for the cycle network had provoked discussion of the operating speed (rather than speed limit) and appropriate traffic volume criteria. The CNG guidance suggests <1,500 AADT (ideally) with 3,000 being set as the upper limit. This aligns with NACTO guidance, but North America is not regarded as an example of best-practice for cycling and the Dutch limit for an on-road ‘main cycle route’ appears to be 2,000 (supported by a more cycle-friendly culture amongst drivers). While 2,000 AADT is preferred, the definition accepts an absolute maximum of 3,000.

### **b. Omnibus Rule changes**

Mark Edwards explained that the Omnibus Amendment 2018 had been passed in 2019 and would come into effect on 1 June. A summary of the changes relevant to the active modes was circulated prior to the meeting and it was noted that the full list of changes was available at: <https://www.nzta.govt.nz/about-us/consultations/archive/land-transport-rule-regulatory-stewardship-omnibus-amendment-2018>

### **c. Defining draft minimum guidance for delineation of cycle lanes**

Mark also reported that the working group, established by the previous meeting to identify draft minimum guidance for cycle lane delineation able to be incorporated into Part 5 of the TCD Manual, had produced draft minimum guidance that was now being reviewed with the aim of reporting to the meeting of the TCD Steering Group on 10 July.

## **10. Development of NZ Public Transport Design Guidelines**

Lorelei Schmitt was welcomed to the meeting and reported on the work being done to revive and build on the work done and largely shelved five years previously. It was hoped that this work could ease tensions between different layers of government, improve levels of service for users, deliver potential savings through bulk purchasing and provide national consistency, not just in PT design but also in design guidelines.

It is intended that the PT Design Guidelines would be in a web-based format, as with the CNG, but in a style that was likely to be more of a hybrid of NACTO and CNG and with more care taken with the structure to ensure that the contents were more intuitively grouped. The project was still essentially in the scoping stage, but priority topics already identified included: bus stops (especially where a cycle lane is present), corridor clearance, priority, layover and driver facilities, interchanges and inclusive access (‘first and last mile’).

The topic scopes are due to be circulated by the end of June and the first draft sections could be ready by August, but it is recognised that several topics will be major pieces of work. For intermodal

connections for bus stop design, PT interchanges and integrating other modes into 'first and last mile' design, there will need to be significant overlap with the CNG and the new Pedestrian Network Design Guidelines. Work on Part 4 of the TCD Manual should also synchronise with the project and deliver synergies. Gerry Dance reported that development of the new Pedestrian Network Design Guidelines has begun, with the intention that a more user-friendly structure can then be applied back to the CNG.

#### **11. Cyclist Code Update Project**

Gerry Dance welcomed Elizabeth Claridge and Samantha Stanley to the meeting to report on the work being done to update the Cyclist Code. Although this is a very popular, heavily used document, it is available only in hard copy and the accumulation of changes over the years has made it text-heavy, poorly organised and repetitive, and only 25-30% of the road-using public had heard of it. Customer feedback indicated a desire for a better designed tool able to meet differing needs for users, with less text and more illustrations. This is likely to be an on-line guide for cyclists with a flyer and printer code for trainers. Preliminary testing of options drew a phenomenal 2,500 responses and clearly favoured a more conversational tone and style.

#### **12. Cycling Network Guidance update programme**

Glen Koorey reviewed the list of tasks associated with the expansion and development of the Cycling Network Guidelines and noted a number of projects at the stage where feedback was sought. The draft section on contra-flow cycling remained heavily dependent on a definitive French text and needed more local case-studies and photos. The draft "restrictive devices guidance" has been relabelled "access control" and abridged in a less mandatory style. The draft cycle parking design guide had also been pared back to key principles and examples of preferred designs, materials, dimensions, locations, spacing and layout. Guidance on heritage considerations had been produced as a fact-sheet in the Technical Note style and was agreed to be excellent. The guidance on commercial access derived from the trial of various alternatives to green blocks and sought to encapsulate what had been learned from that trial.

Action for all group members to provide feedback on any of these documents by mid-June:

- the summary of all CNG tasks;
- the draft content on contra-flow cycleways;
- the draft on Access Control Devices;
- the draft guidance on two-way path crossings of commercial accesses;
- the draft on bike parking guidance;
- the draft technical note on heritage considerations;
- the discussion document on marking conflicts in shared areas.

#### **13. Shared path conflict zones**

Glen reported that guidance on this remains only a discussion document at present as it seeks to capture the key principles and summarise the available tools in the network manager's toolkit. This is expected to lead to guidance on the five typical situations and the solutions or interventions recommended that will ultimately feed into the CNG.

#### **14. Shared path marking Rule changes**

Simon Kennett sought feedback on alternatives to signage for cyclists where a shared path ends to give clear guidance on where they were to go. The group noted that the "ends" sign is discretionary, because the markings or signs at that point should clearly indicate the required behaviour from that point. This should include a short length of green ramp where cyclists are being directed back onto the roadway. Simon also sought agreement on the minimum TCD requirements if there were to be Rule change so that traffic turning into a side road would need to give way to crossing pedestrians or cyclists. The same requirement to give way would apply to traffic exiting the side road. The group agreed that placing a separate "Give Way" sign for this would be confusing and unnecessary with appropriate treatment of the crossing. A minimum treatment for the least complex or busy situation was agreed to be two 100mm white lines marking the width of the "crossing" across the full width of the side road and continuing the alignment of the adjacent two parts of the path.

### **15. Supplementary signage for shared and segregated pathways**

Paul Barker introduced Anna Blomquist and Hugh Wilson, who explained work being done by Wellington City Council to improve safety for vulnerable pedestrians on shared paths and sought feedback on some proposed signage. The desired outcome is a consistent message across the city covering a diverse range of public spaces. A set of mock-up signs was presented to show the use of colour to indicate routes as well as types of space or hazard by green or red stripes at the edges.

The group questioned the attempt to combine wayfinding and behaviour modification on signage and noted that the results were impractical, in terms of the size of the text, and inconsistent with agreed national wayfinding and behaviour modification signage and markings. It was noted that local route colour wayfinding could be marked on the surface or added within the space provided within the approved national wayfinding signage designs. The proposed use of bollards for wayfinding was not supported.

It was agreed, however, that further work to update the style of the behaviour modification markings is needed to arrive ideally at a single marking that might better meet the desire for a nationally consistent marking. Auckland, Wellington and Christchurch will test some possible markings.

Action for Adam Beattie, Paul Barker and Steve Dejong to coordinate with Simon Kennett.

### **16. Acceptance and naming of national design guides**

It was agreed that every document that has been adopted as a national design guide must be checked to remove any notation or attribution that detracts from this status, such as it still displaying “Flow” or “Opus” or “Christchurch City Council” or “Draft” on the documents. Similarly, where there is a statement on retention of the IP in a document by the original consultants or contracting authority, this needs to be removed. It was accepted that this latter task would require written approvals from the cited IP owners.

Action for the Agency; Gerry Dance and Simon Kennett to coordinate.

### **17. How AMIG submits proposed changes to the TCD Steering Group**

It was agreed that a distinction needs to be made between the routine reports made to the TCD Steering Group on relevant discussions within AMIG on signs and markings and any formal submission made in support of a change sought by the group. The latter needs to be an agreed action and the submitter and a second need to be recorded to ensure that any submission can be properly supported.

### **18. Threshold sign for ‘Sharrows zone’ or ‘Greenway’ or Quiet Street**

The meeting noted that the proposed threshold sign issue has been going between AMIG and the TCD Steering Group for some time. It had most recently been to the TCD Steering Group in March. And the Steering Group had requested a robust paper responding to the feedback from the previous TCD Group discussion, stating what the issue was that was being addressed and why this was the apparent solution.

Although the group still saw the merit in the combination sign, in communicating the expected behaviour and the reason for it while reducing the number of signs required, it was agreed that changes to the law and Rules might allow this to be achieved without needing to combine the speed limit roundel with the sign for some form of new shared space.

It was agreed that what this new shared space might be and what, if any, new sign might be appropriate for it, appeared to be matters already potentially being addressed within the Innovating Streets for People project. It was agreed, therefore, that this matter would be withdrawn from the agenda for the next TCD Steering Group meeting and, instead, the background research and supporting documents for the threshold sign concept would be passed to the Innovating Streets for People project team.

Action for Mark Edwards and Tim Hughes to provide necessary information to Claire Pascoe.

## **19. Use of Sharrow marking in shared lane for left-turning traffic**

The group noted that potential changes to the Rules could necessitate greater use of some form of marking to alert road users to the ability of cyclists to proceed straight ahead from a left-turn lane and that the marking specifically designed to alert motorists to expect cyclists and to alert cyclists to take a traffic lane was the sharrow. Group members had two distinct concerns about such a use, however.

One concern was that the removal of a dedicated cycling facility and its replacement with a shared lane reduces the safety and legal protection provided to cyclists and inclusion of such usage in the Sharrow Best Practice Guide could be seen to encourage such practice and be contradictory with the present text.

The second concern regarding the amended use of sharrows in shared lanes (left-turn and transition zones) as discussed in the Greer's Rd, Christchurch, example at the previous meeting, was that the high numbers and approaching speeds of vehicles are inconsistent with the criteria within the Guide for the marking to be used only on low speed and low traffic-volume streets.

While it was noted that the marking had been successfully employed on high-volume streets with low speed environments during the trial and the text of the Guide does not specify use only in low speed and low traffic-volume streets (and recommends only that the marking not be installed on roads with actual travel speeds above 50km/h), no agreement was reached on extending the use of the sharrow into shared lanes with left-turning traffic.

## **20. Use of green outside of Special Vehicle Lanes**

Glen Koorey noted the direct lead into this item from the previous one, with the sharrow placed on green blocs being one suggested intervention. Colour is now being widely used and green has been applied to identify potential conflict zones, transition zones, advanced stop boxes and crossings. The challenge is to identify the key principles being applied in making decisions to use colour in some situations and not in others. Although the group was again reminded that the green bars had been approved for use only on cycle paths crossing commercial access ways, and not to mark paths across intersections, it was noted that these markings have rapidly spread to other crossings and transition zones.

Action on whole group: to supply photos of different uses of colour outside of a Special Vehicle Lane with the rationale for doing so. Provide to Gerry Dance and Simon Kennett with copy to Glen Koorey.

## **21. Design**

### **a. Separated cycle path with 1:3 kerb**

Ina Stenzel presented an example of a traversable kerb recently installed by a developer in a new subdivision at Drury, where the kerb consisted of a 200mm slope rising 65mm to a level 100mm wide. The group noted that the very smooth plane of the slope created a potentially high risk for cyclists who attempted to traverse it at the wrong angle or, especially, if the kerb were wet.

### **b. Protected intersection**

Ina presented examples of intersection treatments at new developments. These demonstrated the need for greater guidance, especially in designing for the interaction of cyclists with pedestrians as well as traffic. The examples included unapproved regulatory signs and markings (such as "elephant's feet" placed along the edge of a green road-crossing). Particularly noticeable was the unapproved innovative use of zebra crossing markings across cycle paths or shared paths where these meet footpaths at intersections, including within signal-controlled situations.

### **c. Platform paired crossing across multiple traffic lanes**

Ina Stenzel presented a proposal for introducing a Copenhagen lane with reduced radii and width at the intersection of St Luke's Road and Duncan McLean Road, with a paired crossing on a table placing a zebra-crossing across the left-turning and right-turning lanes approaching the intersection. While it was noted that installing a zebra-crossing across two lanes is not recommended practice, at this location it

was agreed that the risk that a vehicle in one lane would fail to see and stop for a pedestrian who entered the lane after a vehicle in the other lane had stopped was greatly reduced by the proximity of the intersection at which both vehicles were required to stop anyway.

## **22. AT Accessibility Assessment framework**

Ina reported on work being done by AT to develop an audit framework that combines the assessment to avoid multiple overlapping audits. Tim Hughes requested to be involved in this project.

### **General business**

The next meeting was confirmed for 7 August in the same venue in Wellington and it was agreed that those attending the 28-29 November meeting in Dunedin should attempt to coordinate accommodation to facilitate dining together.

It was noted that the next Planning and Design for Cycling course was scheduled in Auckland on 14 June and an Advanced Cycle Intersection Design workshop was scheduled in Wellington on 24 July.

Meeting closed at 4.25 pm.