Submission on the Traffic Control Devices Rule (54002)

About CAN

The Cycling Advocates' Network of NZ (CAN) Inc is this country's national network of cycling advocates. It is a voice for recreational, commuter and touring cyclists. We work with central government and local authorities, on behalf of cyclists, for a better cycling environment. We have affiliated groups and individual members throughout the country, and links with overseas cycling organisations. In addition, some territorial local authorities, and one consultancy, are supporting organisations.

The national committee of the group has prepared this submission. You can find our names on our website http://www.can.org.nz/ under 'contacts -> office holders'.

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Overview – Roundabouts

CAN would like to reiterate its disapproval of the lack of consideration of issues for cyclists at roundabouts, which was already conveyed in our submission on the red draft of the Road User Rule. For your convenience, we submitted the following text on the Road User Rule concerning roundabouts:

> *The LTSA recommends, "traffic proceeding more than halfway around the roundabout must approach in the right-hand lane…". This is obviously required when Alberta-style markings are made mandatory for multi-lane roundabouts.*
>
> *This is clearly unrealistic to expect from bicyclists, and puts bicyclists in the most hostile position imaginable. Roundabouts must provide for the safe (and efficient) movement of bicyclists, too.*
>
> *This may mean specifying the mandatory provision of bicycle tracks at multi-lane roundabouts. Without specifying provisions for bicyclists, CAN strictly opposes Alberta-style markings to be made mandatory.*
>
> *On page 7 of the consultation document, the following characteristics of 'successful' traffic laws are listed (excerpts only):*
>
> - *Related to a safe outcome.*
> - *A reasonable balance between the various road user interests.*
> - *Can be readily applied.*
>
> *From a bicyclist's perspective, all of these characteristics are violated. It can only be concluded that the proposal of Alberta-style markings to be installed is not consistent with successful traffic law.*
>
> *On page 22 of the document, it is argued "Provided the roundabout design takes account of the mix of traffic likely to be using it, and in particular increasing the*

amount of deflection above the minimum, thereby slowing down vehicles on the roundabout, bicyclists should be accommodated more safely…". This raises two further issues:

- *What happens to the roundabouts that do not display more than the minimum deflection? Are these roundabouts to be rebuilt?*
- *Research undertaken in Great Britain shows that when multi-lane roundabouts are first built, up to 30% of existing commuter bicyclists chose a different route, so that they can avoid the roundabout. This suggests that by introducing the roundabout in the first place, the traffic mix changes, and consequently there may not be 'enough bicyclists left' to justify special provisions for bicyclists (e.g. increasing deflection or providing segregated bicycle tracks).*

CAN feels that more research needs to be undertaken to resolve the issues brought up by the bicycling fraternity.

The TCD Rule quotes some research from Queensland, which states that 6.5% of the injury crashes at multi-lane roundabouts are potentially attributable to the style of marking. While CAN accepts that the Alberta layout is best for motorists on multi-lane roundabouts, this does not necessarily mean however that a multi-lane roundabout (or any roundabout) is the best solution to apply in many cases, so as to benefit all road users. Of the 202 injury crashes at roundabouts in 2000 (c.f. 193 stated in the draft rule), 59 (29%) involved a cyclist. These statistics suggest that the problems addressed by the conversion to Alberta-style markings are of a lower magnitude than the problems experienced by cyclists at this type of intersection. The problems for motorists are addressed, whereas the problems for cyclists are not being dealt with.

We continue to stress the need to put in place in the Rule and associated references encouragement to provide safe and practical cyclist alternatives (or indeed consider an alternative intersection form).

Overview – Marking of Cycle Lanes

We are concerned that an RCA is required by the *Transport Act 1962* to pass a bylaw to enable cycle lanes to be marked and controlled. We are not sure whether this is restricting more RCAs from currently introducing cycle lanes, but know of some RCAs who simply do not pass these bylaws and establish cycle lanes without compliance to the *Transport Act*. It would seem practical that the national road traffic rules sufficiently allow for cycle lanes without requiring RCAs to go through additional red tape. It is not clear to us from reading the red draft of the TCD Rule whether the bylaw requirement of the *Transport Act 1962* is being revoked.

Our key concern however with this rule is to ensure that only a reasonably adequate cycle lane can be legally construed as such. In particular we feel that a minimum legal width must be specified, in the same way that a traffic lane must be at least 2.5m wide.

Although more relevant to the Road User Rule, we note with interest the quote from Regulation 4(4) regarding moving to the left. Cyclists regularly have a problem with vehicles "squeezing" them at narrow locations, and some cyclists may choose to "take" the whole lane to prevent this. To clearly legitimise this practice, we suggest a minor change to this regulation in the new rule: "...shall as soon as reasonably SAFE AND practicable, move..."

Overview – Pedestrian Crossings

CAN supports the proposals and also recommends that there be a maximum width of 10m allowed for new pedestrian crossings. The effect will be to require the construction of islands and/or kerb extensions where necessary to minimise the crossing task and improve speed behaviour.

It may also be reasonable to specify a minimum crossing dimension per lane in order to avoid cyclists getting squeezed. CAN suggests that at least 4.5m should be available in situations where motorists can be reasonably expected to not travel behind cyclists, but next to cyclists. Only in heavily traffic calmed areas might it be reasonable to go below this minimum dimension when motor vehicle speeds are similar to cycle speeds, and motorists and cyclists are likely to travel behind one another (i.e. in single file).

We are unclear how the red draft relates to pedestrian crossings on four-lane median-divided roads. The proposal suggests that crossings wider than 15m would need to be reviewed, but due to the solid median, the maximum crossing distance of 15m would rarely be exceeded on these median-divided roads. Since this layout, where two lanes of traffic going the same direction across the crossing, is potentially hazardous to pedestrians, should RCAs be required to review these locations, too? CAN suggests that this review should be required.

Overview – Standards and requirements incorporated by reference

CAN supports the eventual referencing and mandatory use of MOTSAM and CoP TTM in the Rule. However we would wish to see considerable changes made to MOTSAM with regard to cycling facility signs and markings before we were happy with a mandatory specification.

We are concerned with the suggestion that an RCA might still be able to depart from the guidance prescribed in these documents with "good reasons". We feel that this might give them carte blanche to still develop their own local standards, creating inconsistency around the country. While accepting that the current state of MOTSAM often forces this situation at the moment, this should be further reason to bring MOTSAM in line with best engineering practice than allow ad hoc departures from it. A process whereby approval for departures is via the LTSA Director (or his delegated authorities) should be developed. This would also help to minimise designs to a lower level than standard practice because of cost constraints.

It should be noted that the incorporation by reference of MOTSAM into the Rule has caused considerable debate within CAN. Our final position as outlined above is based on the hope that a major upgrade of MOTSAM will result in satisfactory consideration of cyclists' needs. We caution, however, that the upgrade of MOTSAM has been a longstanding desire of the transportation profession (i.e. for several years now), but has not eventuated as yet. If it cannot be achieved to either upgrade this manual, or to get the industry to agree on its

content, could the TCD Rule come into force regardless of a substandard manual that is incorporated by reference?

CAN also has some concerns with the CoP TTM, which were subject to a submission by us to Transit New Zealand (see **Appendix A**). Most of these concerns, however, are caused by the application of the Code, rather than by its deficiencies. We trust that the relevant industry working party will take our submission into account when drafting the final version of the CoP TTM.

Appendix – Guidelines for Line-marking of Multi-lane Roundabouts

The diagrams shown should also incorporate examples of cycle-lane treatments, particularly on single lane through routes.

Section 3

Clause	Comments
3.3	The Rule is not clear in every case on what the status of non-compliant traffic control devices will be when the Rule comes into force. Will they be required to be removed or altered? Will there be some transitional or "grandfathering" allowance before the Rule is fully in place?
3.5	It is not at all clear what this clause is meant to achieve. Perhaps an explanatory note is required or some re-drafting.

Section 4 – Traffic Signs

Clause	Comments
4.3	Without full details being listed in the Schedules, it is not clear what category the existing blue cycle disk sign is considered to fall under. Currently in MOTSAM it is listed amongst the regulatory signs, yet previous in the NRB manual it was considered an information sign (which seems more appropriate). See also our feedback under 11.2

Section 5 – Markings

Clause	Comments
5.2	CAN concurs with the view that mandatory specification of colours or surface treatments is not practical. We would however insist that appropriate guidelines are given in related documents such as MOTSAM, that strongly recommend the use of coloured surfacing for cycle lanes in high-conflict areas. The **Note** under the clause states "that contrasting surface texture or colour has a place in reinforcing places where use of the roadway is

	restricted to particular classes of vehicle (for example, cycle lanes)." In CAN's view, the primary purposes of contrasting surface texture or colour in cycle lanes is to raise motorists awareness of cyclists possibly being present in a high conflict area, and to illustrate to both motorists and cyclists the most likely path that a cyclist will take or is supposed to take, respectively. This latter description fits a cycle lane through a diverge area where motorists move from a through lane across a cycle lane into a left turning lane. This area is obviously not restricted to cycles, but should in CAN's view be subject to the traffic management discussed here. We thus suggest that the **Note** be adjusted accordingly.
5.3	We note the use in other countries of both "mandatory" and "advisory" cycle lanes. Although it appears that the proposed cycle lane markings will be mandatory (i.e. other vehicles will not be able to normally use them), there may be circumstances where it is desirable to mark cycle symbols on the road to indicate a shared lane (e.g. bus/cycle lane). Hence provision must be allowed for this to be legally feasible.
5.4. (2)	This clause states that the markings in Schedule Y are minimum dimensions. It may be desirable to have the option of using a scaled down version of some markings (e.g. lane arrows) for use in cycle lanes (see our comments to 7.12(3)).

Section 6 –Traffic Signals

We are concerned that there is no speed limit restriction for an approach to traffic signals. Is 100km/h really safe? Other jurisdictions have speed limit restrictions at traffic signals (e.g. 70km/h in Germany).

Clause	Comments
6.1	The number of lanterns is dependent on the type of lantern display, as per Austroads requirements. Signals comprising discs should have three displays, signals comprising arrows should have two displays, and signals comprising special displays should only require one display. For example, it is often unnecessary having a primary 'B' symbol because the only time it comes up is when the bus is over the detector loop, which is located at the stopline. It is not possible for the driver to see a primary display. Similarly, a cycle display may only be suitable in a secondary location (e.g. for cycles heading straight through into a park from the stem of a Tee intersection, where the cycle lane is between the left turn and right turn lanes and therefore it is unnecessary to have a display on the primary pole. Hence, one display for special lanterns is appropriate. We suggest that there be three sections to 6.1, such as:

	6.1 (1) Discs (or Roundels) (a) as drafted (b) at least two supplementary … as per Austroads 6.1 (2) Arrowed displays (a) as drafted (b) as drafted i.e. at least one supplementary … 6.1 (3) Special displays (a) a traffic signal facing traffic approaching the controlled area and in an appropriate position that is clearly visible… (b) an additional supplementary traffic signal may be provided to improve visibility and safety.
6.3 (2)	Include a clause that allows the use of smaller diameter displays for special signals in the primary display, e.g. cycle displays. Perhaps a figure of 100mm would be suitable. CAN proposes to allow smaller size primary aspects for cycle signals as shown in **Appendix B** (Figure 1). This allows for cycle signals in a primary position that are mounted at eye height, which is based on European examples, where signal conspicuity is maximised by placing the signals in the most prominent position for approaching cyclists (i.e. at eye height). We feel, however, that the current aspect dimensions are not suitable for that purpose, and propose to allow smaller aspect for this specific case only. Another reason for wanting to place cycle signals in a different location than the signals for motorists is the potential for confusion. At Hospital corner in Christchurch, the cycle signals are mounted in a secondary position next to the normal signals, with the cycle phase preceding the phase for motorists. This caused many near misses, due to motorists noticing signals on the far side of the intersection changing to green and thus entering the intersection, when in fact it was the cycle signals that displayed the green light. The problem was overcome by installing vertical louvers over the cycle aspects, but now the cycle symbol is hardly visible, requiring local knowledge that the signals are in fact for cyclists. All these problems could potentially be overcome with small cycle signals mounted on the yellow pole at the end of the holding bar, which can be seen in Figure 2 in **Appendix B**. This set of cycle signals in a primary position would be well visible to cyclists, with motorists not likely to look at these lights, as they are not in 'their view', thus removing the scope for potential error.
6.3	Need to add "for a cycle lane OR STORAGE AREA,...". Cyclist storage

(6)(a)(i)	areas are often set in front of other traffic lanes.
6.3 (6)(b)	The reference to 10.5 (1) does not seem to be right.
6.4	The sequences are too inflexible, and some seem to be wrong. Currently we have adequate signals that do not comply with the sequences as listed. A better (and simpler) way to specify this is that every user must see a cyclic sequence of green-yellow-red-green from some combination of signals that apply to them. This could mean, for example, that only a green cycle symbol needs to be provided, when the phase for cyclists always terminates with the phase for motorists (i.e. after the green cycle aspect is extinguished, cyclists see a full yellow and then a full red aspect). Alternatively, you could just reference Austroads.
6.4 (5)	This should read something like 'In a single or multi columned steady vehicle display, at least one signal must be lit. In a six-aspect display, you can have the arrowed column with no aspect lit! We would also like to encourage you to consider making provisions for part time signals at roundabouts, and this clause seems like the appropriate place for it. The clause could be amended to read, "except for a two aspect yellow and red display used for signalised roundabouts." CAN's view is that signals are generally preferable for cyclists than roundabouts, with the main reason being a lower cycle crash rate at signals. Reference is made to *How safe are roundabouts for cyclists?* (Wilke and Koorey, in TranSafe, Issue 5, April 2001), where it is stated that: *LTSA data for the period 1996-2000 shows that out of 916 injury crashes at roundabouts, 243 involved a cyclist, i.e.26%. This compares with cycle injury crashes at traffic signals (223/3585 =6%)…* Hence, it appears that signals are by far the safer form of intersection control for cyclists. We thus assume that allowing part time traffic signals at roundabouts could have safety benefits for cyclists, and should therefore be considered as a traffic control device.
6.4. (7)	We are not sure whether this clause allows for cyclist movements to their own lane, which may be able to co-exist with other movements. For example, at Kilmarnock/Deans in Christchurch, cyclists may cross from Hagley Park to Kilmarnock St while right-turning traffic from Deans Ave turns into Kilmarnock St (see **Appendix C**).
6.4 (13)(a)	Should read 'cycles are permitted to enter an area controlled by traffic signals when other traffic is not permitted to carry out the same manoeuvre' (compare 6.4. (7) above). As discussed under 6.4., if the

	cycle display always terminates with the full green, it is sufficient to only provide a green cycle aspect.
6.6 (1)	"signs" should read "signals"

Section 7 – Channelling Traffic

Clause	Comments
7.3 (1)	This clause provides no way to indicate when overtaking cyclists is also not allowed or desired, e.g. in a narrow traffic lane/bridge. Possibly to avoid confusion, separate signage needs to be applied rather than a different road marking.
7.9 (1)(d)	Modify to read "provide a continuation of a pedestrian OR CYCLE route and alert drivers to the presence of pedestrians OR CYCLISTS."
7.12 (3)	This clause does not appear to allow for lanes that certain road user groups may use to travel in a different direction (e.g. left-turn lanes that allow buses or cycles to travel straight through). At present the only way to allow this is to leave the lane unmarked with regards to direction (and possibly add supplementary signage), but this would contravene the proposed rule. A possible means of marking separately for cyclists for example would be to allow cycle symbols in conjunction with small lane arrows, in which case clause 5.4. (2) needs adjusting.

Section 8 – Pedestrian Crossings…

Clause	Comments
8.5 (4)	As stated in the overview, CAN supports the removal of centrelines through pedestrian crossings, but would like to point out that sign P19 in Schedule X shows this centreline.
8.5 (6)	The 30m visibility in the clause might be too inflexible. In a high speed environment, a greater distance is desired to allow for reaction plus stopping time. In a very low speed environment, however, 30m visibility might be more than necessary. CAN suggests that visibility should always be related to sight distance as per Austroads Part 5, which takes account of approach speeds.

Section 9 – Railway Level Crossings

Clause	Comments
9.3 (2)	"Schedule X" should read "Schedule Y".

Section 10 – Intersections

Clause	Comments
10.3 (2)	CAN is in support of the proposed 'Give Way Triangle' road marking, and option (c') seems most reasonable for its implementation. Many cycle crashes are due to motorists who have to give way failing to observe cyclists in time. This is a specific problem at roundabouts, where 57% of all cyclist injury or fatality crashes involve a motor vehicle entering the roundabout and colliding with a cyclist who is already travelling around the roundabout (refer *How safe are roundabouts for cyclists?* Wilke and Koorey, in TranSafe, Issue 5, April 2001). Minimising the amount of paint (which has lower skid resistance than the surrounding road surface) in the path of motorists who may have to undertake an emergency stop because they have overlooked a cyclist can only increase cyclists' (and in fact other road users') safety.
10.5 (1)	Regarding the boxed note; advance cycle boxes were first officially trialled in New Zealand over two years ago (i.e. the official trial period should be finished by now), and there are currently a large number of these (particularly in Christchurch, where they have been used since the mid 1990's).
10.5 (1)(b)	As discussed for clause 6.1, we don't think that a 'special display' traffic signal (e.g. a cycle aspect) should in all cases be at the limit line, and thus suggest that this clause be amended accordingly. Alternatively, this clause may be deleted altogether, as it is a repeat of clause 6.1
10.5 (1)(c)	This clause may be deleted, as it is a repeat of clause 6.1
10.5 (3)	The list of signs allowed to be mounted on traffic signal poles should be amended. The 'No U Turn sign' should definitely be included, and 'Right Turning Traffic Give Way' signs are in use in Christchurch (and seem to be achieving their objective). We suggest that it may make sense to differentiate between signs displayed to motorists (where some restriction as to which signs are allowed might be useful for road safety reasons), and signs for cyclists and pedestrians at a mid-block signalised crossing, say. This may include signs telling pedestrians to stand on the pedestrian pad, signs advising pedestrians to stand in a box marked at the crossing (so that they get detected by the infrared device), and at a combined cycle/pedestrian crossing, a sign could tell pedestrians to go one side (so that their push button calls the pedestrian phase) and cyclists to go the other side of the pole (so that the shorter cycle phase only gets called in order to minimise motorists' delay). CAN also proposes that directional indication may be given at cycle aspects using auxiliary directional reflective arrow signs. This is common practice in European countries, with Figure 3 in **Appendix B**

	showing a German example (mirror image). There are two main reasons for these auxiliary signs being useful: 1. When off-road cycle pathways at intersections are to be included in the signal program, then only some movements by cyclists may have conflicts with other traffic. 2. There are times when the cycle aspect is displayed, but cyclists are to proceed in a specific direction only. Figure 3 is an example of the first case. Here, only cyclists crossing the road at the signalised intersection need to be included in the signal program, whereas cyclists remaining on the off-road pathway can proceed without conflict. Figure 4 in **Appendix B** is another example of the first case, where the straight through cyclists are incorporated into the signal program. **Appendices C to E** show examples where some movements of cyclists are in conflict with other traffic streams, representing the second case outlined above. **Appendix C** (Deans / Kilmarnock intersection) represents a case where the Christchurch City Council has identified a signal program that would result in a more efficient operation. With that altered signal program, cyclists coming out of Hagley Park (on the east side of Deans Avenue) have a conflict when they turn right into Deans Avenue. At the 'Hospital Corner' (Hagley / Oxford / Riccarton / Tuam) intersection (**Appendix D**), a kerbside cycle facility in Riccarton Avenue is connected to the cycle off-road pathway in Tuam Street, requiring cyclists to cross two traffic lanes (see Figure 2 in **Appendix B**). The cycle phase is operated concurrently with the pedestrian phase across Oxford Terrace, and traffic coming out of Tuam Street is moving at the same time. That is, cyclists turning right have opposing through traffic as a conflict. To overcome that problem, the cycle signals have an auxiliary sign saying "To Tuam St only". This sign requires local knowledge as to the location of Tuam Street. The Antigua / Tuam intersection is shown in **Appendix E**. Cyclists in an eastbound direction proceed at the same time as opposing through traffic. Hence, right-turning cyclists will have to give way, with the cycle signals again being fitted with an auxiliary sign "To Tuam St only". In all these cases, a supplementary directional arrow would indicate to cyclists that the green cycle aspect is for the shown movement only. Supplementary directional arrows are easy to comprehend and intuitive and don't require local knowledge.
10.6	CAN has some concerns for cyclists' safety stemming from an increased use of 'Keep Clear' zones at intersections.

	There is already a risk of queues of traffic leaving a gap for opposing right turners. When cyclists pass these traffic queues on the inside (maybe even travelling in a cycle lane), often these right turners do not consider cyclists, leading to crashes. It seems important to bring the likely presence of cyclists to the attention of opposing right turning traffic. An increased use of 'Keep Clear' zones might lead to an increase in the occurrence of this type of conflict for cyclists. CAN thus recommends that the use of contrasting surface texture or colour be recommended to RCAs where 'Keep Clear' zones be installed and the conflict with cyclists is likely to occur.

Section 11 –Traffic Control Devices for Special Classes of Vehicle and Road User

Clause	Comments
11.2	The **Note** asks for feedback on the 'circular blue sign with a cycle symbol', otherwise known as RG-26. The sign is listed in MOTSAM as a regulatory sign (see also our feedback to clause 4.3). To our knowledge, it does not fulfil a regulatory function, though. Furthermore, its exact meaning is unclear, even within the transportation profession. In the Road Code – the only material lay road users have any likelihood of reading – it is plainly misleadingly referred to under the category `Signs Which Tell You What You Must Do', as referring to a `Cycle Lane'. Although no doubt a well-meant rendering of MOTSAM's technical terms into lay English, the sign is commonly used to indicate advisory cycle routes with no or few cycling facilities at all, rather than to indicate `cycle lanes'. With all this confusion, CAN recommends that the sign no longer be used for either marking cycle lanes, or low volume streets that form part of a cycle network. We have not developed a particular preference as to how cycle lanes should be signposted, and in fact whether cycle lanes need to be signposted at all. Research carried out by Christchurch City Council revealed that marking of cycle lanes with cycle symbols is by far the preferred method of indicating the presence of a cycle lane by cyclists. In the same survey, motorists responded that the markings give them a stronger message than the RG-26 signs. CAN's preference is thus: • the use of the cycle symbol at a closer spacing than at present (MOTSAM currently specifies a maximum spacing of 200m) • to discontinue the use of the RG-26 sign for signposting cycle

	lanes, and • to investigate whether the signposting of cycle lanes should be undertaken using different signs (with no signposting being one option). The proposal to indicate legal cycle lanes by use of (sufficiently regular) symbols seems a good way to provide adequate indication of its status. There needs however to be the option of providing for similar cycle symbol markings in other locations where they are deemed useful, without imposing restrictions on other road users. For example, in Australia, yellow "advisory" cycle symbols are painted on roads that are not wide enough to provide separate cycle lanes, but where cycle use is high, or where the road forms part of a network. These help to warn motorists and move them over in the lane. The existing RG-26 sign might be useful for signposting of segregated paths. Here, it should fulfil the function of indicating to cyclists and pedestrians that cyclists can legally use paths. The signposting of cycle routes is mainly an information issue, and in CAN's view doesn't require regulatory signs.
11.2 (1)	As discussed under clause 11.2, the maximum spacing of cycle symbols should be decreased (to 50m, say). This could either be added as a clause (c) "at intervals of no more than 50m.", or could be specified in MOTSAM.
11.2 (2)	In line with the discussion above, this clause would need to be updated to either a new sign replacing the RG-26 sign, or could be deleted.
11.2 (3)(a)	Diagonal markings are not recommended for cycle lanes. They are potentially confusing, given that in some situations they indicate an area in which vehicles are not supposed to drive on (e.g. painted medians), while in other situations drivers are specifically required to drive over the diagonal area (e.g. right-turn lanes). More importantly, frequent diagonal markings will create a large surface area of paint, with increased risk of cycles slipping on it. Sufficiently frequent cycle symbols should provide an adequate indication of a cycle lane; having the option of diagonal markings would introduce confusion to people over the difference.
11.2 (4)	Add clause (c) "signs may also be provided at other regular intervals as required."
11.2 (5)	Add clause (c) "signs may also be provided at other regular intervals as required." Consider adding a clause (d) for the separation of the two sides of the path, "a white line separating the two sides of the path, or other suitable delineation devices." This is common practice in Australia,

	resulting in pedestrians tending to stay on their half of the path, which in turn minimises conflicts (and probably crashes) with cyclists.
11.2 (6)	We note that there are no specific clauses relating to cycle or pedestrian only paths.
11.2 (7)	It is not clear why clause 6.4 (13) should be replicated here. See also our feedback under clause 6.4 above. A clause similar to that for pedestrians in 8.2(4) would be useful to provide for cyclists at mid-block locations.
11.3(3)	We suggest that allowance be made for lanes that both buses/transit and cyclists can use. This is common practice in Christchurch and Auckland.

Section 12 – Stopping, Standing and Parking

Clause	Comments
12.1 (2)	CAN would like to point out that the Road User Rule proposes to "prohibit parking or standing on a cycle lane", which is strongly supported by us. Hence, a kerbside cycle lane falls under clause 12.1 (2), and RCAs must consequently apply clause 12.2 (1)(a) or 12.2 (1)(b). We therefore suggest amending the wording of this clause to clarify this requirement to RCAs, "If a road controlling authority prohibits the kerbside stopping of vehicles at all times (WHICH INCLUDES THE INSTALLATION OF A KERBSIDE CYCLE LANE), it must advise road users …". This requirement is very useful and will increase the safety of cyclists. It can prudently be assumed that many motorists will not be aware of any legal changes to cycle lanes in future (e.g. that parking in a cycle lane is prohibited), hence parking in cycle lanes is likely to be dependant on the parking demand when the prohibition on stopping is not shown by the means specified in clause 12.2 (1)(a) or 12.2 (1)(b). It is also an accepted safe practice to cycle in a straight line and not to swing in and out around parked cars. If a cycle lane is marked, thus encouraging cyclists to cycle in it, any vehicle parked on a cycle lane will encourage the unsafe practice of cyclists swinging out, possibly into the path of an overtaking vehicle. Therefore, it is of high importance to keep cycle lanes clear of parked vehicles, with the means specified in clause 12.2 (1)(a) or 12.2 (1)(b) promising the best success.
12.4	This clause would allow for forward-out style parking as found in Europe and favoured by cyclists for its obvious safety benefits. We encourage promotion of this technique in the related design references.

Part 2 – Definitions

Bollards: We note that the list of materials does not include timber.

Cycle Lanes: We suggest that a legal cycle lane must be at least 1.2m wide, which is only slightly wider than what is generally considered to be the "design envelope" of a cyclist. This minimum dimension will prevent RCAs from providing a cycle lane that includes narrow "pinch points", which may disadvantage cyclists should any vehicle conflicts happen there.

Note: The suggested minimum dimension for a legal cycle lane caused some debate within CAN. It is apparent that far too many RCAs apply absolute minimum standards when it comes to designing cycle facilities, and it was felt that there is a risk of the minimum dimension as it is suggested here to be applied in cases when this is entirely inappropriate or even completely unsafe. In the end we concluded that the rule can only specify the absolute minimum dimension, but we insist on related design references being quite specific about absolute minimum dimensions for cases where the 1.2m width is inappropriate. Such cases are cycle lanes adjacent to parallel or angle parks, or adjacent to vertical obstructions like walls or fences. We also suggest that departures from these standards require explicit approval. We suggest that MOTSAM be the appropriate reference where these standards should be defined, as this document is proposed to be incorporated by reference into the TCD Rule.

Cycle path: This term is easily confused with those for "cycle track" and "cycle lane" and is technically incorrect, given its availability to pedestrians. We suggest that this should be renamed "**Shared path**", which is a commonly understood term.

Intersection: Amend to read, "in relation to two or more intersecting or meeting roadways (INCLUDING A CYCLE TRACK MEETING A ROAD), means that area…". This allows for off-road paths to be given priority over minor roads, where considered prudent. At present there is no legal way to indicate priority of the cycle track over the road, as it is not considered an intersection.

Roadway: Amend to read, "means that portion of the road used or reasonably usable for vehicular traffic, and includes a cycle lane, A CYCLE TRACK, AND A SHARED PATH". This allows for cycle paths (or shared paths) and cycle tracks to be given priority over minor roads, where considered prudent.

The way the TCD Rule is currently drafted, cyclists on a segregated pathway (i.e. either a cycle track or a shared path) always have to give way to turning motorists at every side street. This is an important difference to European countries and North America, where right of way is defined for the road corridor. In these overseas countries, turning motorists have to give way to cyclists, unless a site is signposted otherwise.

As a consequence of the legal situation in New Zealand, a segregated pathway would often not be acceptable to commuter cyclists, due to them having to give way at every side street. This in turn prevents RCAs providing segregated pathways in the first place, as these would potentially not offer an acceptable level of service for one of the main user groups (i.e. commuter cyclists). An example of this is Fendalton Road in Christchurch, where the main reason for not allowing for a segregated pathway (as asked for by the local cycle user group) in the proposed widening was this give way situation at the side streets.

CAN acknowledges that segregated pathways do not necessarily result in safer facilities when compared to cycle lanes. Scientific evidence for this is compiled on the following internet site: http://www.lesberries.co.uk/cycling/cy_pathr.htm

On the other hand, cycle lanes are often unsuitable in certain road environments. Then, only segregated cycle facilities are suitable for the safe and convenient movement of cyclists. It is for this reason that the legislation in place needs to accommodate the option of providing segregated pathways that are adequate to all groups of bicyclists.

The aim of the suggested amendment of the 'roadway' definition is to give RCAs the opportunity to build segregated pathways where cyclists can have the right of way at side streets. If the definition of 'roadway' cannot be changed for some reason, then the definition of say 'intersection' might be able to be altered to meet this aim.

Segregated Pathway: This is a new definition suggested by CAN, comprising both cycle track and shared pathway.

Schedule X – Traffic Signs

Consideration should be given to aligning the sign numbering system in the Rule with that used in other documents such as MOTSAM. Given the logical categorising of the MOTSAM system, and the present comprehension of it by roading practitioners, it would make sense to change the Rule numbering system.

We are unclear why there is a separate category for "Permanent warning signs - vulnerable road users", rather than being integrated with all other PW signs. We also note that there appears to be no category for temporary warning signs.

The incomplete list of signs presented does not help readers who have a limited understanding of what is currently available. A full list would have been preferred. As it is, we have a suggested list of cycle-specific signs (with relevant MOTSAM or AS1742.9 numbering where appropriate):

Regulatory signs

- No Cycling (RG-24)
- Cycle Parking (RP-9, 9.1)
- Smaller-sized Give Way (RG-6) signs for segregated pathways [AS R1-2]
- Pedestrian/Cycle symbol (RG-25/26) with "ONLY" plate for ped/cycle-only tracks [AS R8-1]
- Cycle + ped symbols on disc (shared path); above each other [AS R8-2]
- Cycle + ped symbols on disc (cycle track adjacent to footpath); side-by-side with line [AS R8-3]
- All Cyclists must turn here (e.g. motorway entrances); "ALL" + cycle symbol + arrow [AS G9-60]
- "EXCEPT BICYCLES" plate [AS R9-3], used in conjunction with movement-restriction signs

Permanent Warning signs

- Cyclists present (PW-35), including >50 km/h situations (not presently allowed for)
- Supplementary double-arrow plate for PW-35 to indicate crossing cyclists

- Supplementary "SHARE THE ROAD" plate for PW-35 to indicate very narrow road situations

- Supplementary "PASS WITH CARE" plate for PW-35 to indicate narrow road/bridge situations

- "Road Ahead" warning for cycle tracks, similar to [AS W6-8] (suggest symbolic version with two vehicles and double-arrow plate below)

- Steep Gradient for cyclists (cycle symbol on triangular block, similar to PW-27)

- Loose Surface for cyclists (cycle symbol with slip lines, similar to PW-41)

(smaller versions of other standard signs can be used on cycle tracks as required, e.g. curve warning, narrow bridge, tunnel, railway crossing)

Temporary Warning Signs

- "CYCLE RACE" supplementary plate (TW-2.13)

- Cyclists present (similar to PW-35) to indicate cyclists present

- Supplementary "SHARE THE ROAD" plate for PW-35 to indicate very narrow road situations

- Cyclist detour signs, similar to the TW-32 pedestrian ones

Information Signs

- Cycle destination and touring signage examples should be provided in the related design references such as MOTSAM.

Schedule Y – Road Markings

General: Some dimensions in Schedule Y are maximum dimension and are labelled as such. Some minimum dimensions are not labelled as such, but should be (e.g. the width of a pedestrian crosswalk in Y.2 and the width of a cycle lane in Y.9).

Y.1: See comments on clause 7.12 (3) regarding cycle specific markings. For these or any other cycle lane markings requiring directional indication, we suggest that arrows with 1/3 the stated dimensions (e.g. 50mm wide lines) be applied.

Y.2 (a)(ii): The 600mm setback for pedestrian crosswalk lines in the diagram should not be specified.

Y.3: See our feedback above in section **Overview – Pedestrian Crossings**, recommending that a minimum kerb-to-kerb dimension be also specified to avoid cyclists getting squeezed at pedestrian crossings.

Y.4: CAN recommends that the zebra markings be of 3m minimum length. The note that a 'continuous line or lines may replace the central bar' should be removed in line with our recommendations in **Overview – Pedestrian Crossings.**

Y.8: A cycle track may be required to give way and should require this symbol to be consistent. However smaller dimensions are appropriate in this case, for example 1/3 the stated dimensions.

Y.9: The cycle limit lines suggested are supported. The cycle lane dimension should be amended with the word "minimum".

Y.10: No dimensions are specified for this symbol. In many cases, the symbols painted on cycle lanes in New Zealand are far too small and inconspicuous, making their usefulness limited. Given a minimum suggested cycle lane width of 1.2m, we recommend that minimum legal dimensions for this symbol be 900mm wide by 900mm high, with 50mm wide lines. For design purposes however we recommend that larger minimum dimensions be specified in related documents.

See previous comments on 11.2 regarding the use of a similar symbol in non-cycle lane situations.

There may also be occasion where a pedestrian symbol is desired to indicate a shared path or pedestrian-only area. A stencil for this should be provided.

Christchurch City Council has developed a simplified cycle symbol (see **Appendix F**) by deleting many details of the old symbol without reducing the recognition of the symbol. This simplifies the stencil, and makes the application of the symbol easier, as the circumference of the white lines is reduced to a minimum (which needs to be cleaned after every few applications). It also reduces the amount of paint applied on the road.

Schedule Z – Traffic Signals

We would like to see examples of normal through-cycle signals, as well as directional cycle signals using a small directional arrow placed above the signal head.