



Christchurch

Transport Operations Centre

Best Practice for TTM Impacting Cyclists

Developed by the Stronger Christchurch Infrastructure Rebuild Team in conjunction with CTOC



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CoPTTM Requirements:

Where activities affect cyclists the TTM must ensure that:

- Pedestrians or cyclists are not led into direct conflict with the operation or traffic moving through or around the worksite.
- If cyclists or pedestrians are directed into live lanes they should be adequately protected from traffic by delineation and/or barriers and suitable warning signs.
- Safe and impediment free temporary paths are provided where cycle lanes are blocked by the activities.

CoPTTM v4 July 2015 Section C13.1.1

Set out below are the minimum temporary cycle lane widths.

Type of lane	Speed	Minimum Width (m)
Single direction cycle lane	Speed limit does not exceed 50km/h	1.0m *
Single direction cycle lane	Speed limit exceeds 50km/h	1.5m
Two-way cycle lane	Any speed	2.0m
Shared footpath and cycle way	Any speed	2.2m #

* A minimum lane width of 1.5m is required if the temporary cycle lane is uphill as riders tend to pump their cycles from side to side as they climb the hill.

Where a shared footpath and cycle way is reduced to less than 2.2m wide, cyclists should be excluded by closing the cycle way.

CoPTTM v4 July 2015 Section C13.3.3

CTOC Requirements:

TMP designers and STMS must:

- Consider marked cycle lanes, CTOC endorsed cycle routes* and any route with a high number of cyclists such as near schools/universities and main roads.
- CTOC best practise for cycle lane minimum width is 1.5m. Should there be an onsite constraint where the contractor wishes to reduce the cycle width to be below 1.5m, a site-specific traffic management plan will be required. This will require reasoning and detail on the proposed reduction below the best practise width, as well as information about how the contractor plans to safely manage cyclists through/past the site.

* A copy of the CTOC endorsed cycle routes can be found here:

<http://www.tfc.govt.nz/travel-by/bike/cycle-map/>

<http://tmpforchch.co.nz/downloads/information-sheets/>

Priorities:

Set Ups:

When accommodating cyclists on through/past a worksite there is a preferred priority, this is ultimately decided by the onsite conditions.

- Temporary cycle lane (*refer to layout 1 and 2 on page 8 and 9*)
- Merging cyclists without speeds (*refer to layout 3 and 4 on page 10 and 11*)
- Merging cyclists with speeds (*refer to layout 5 on page 12*)
- Share footpath with pedestrians (*refer to layout 6 on page 13*)
- Cyclists to dismount bike (*refer to layout 7 on page 14*)
- Detour cyclists to a nearby route

Sign Placing:

Establishing a sign in a cycle lane is a hazard and is usually something that is easy to avoid. When establishing a signs such as T1/T2 or RS1s the priority is:

- Shoulder/parking lane
- Berm/roadside garden
- Footpath (*if you can still maintain footpath widths as per CoPTTM v4 C13.2.2*)
- Alternative location (*can you move the sign location 5-10m away to make it fit in with one of the above options?*)
- Half footpath/half cycle lane¹
- In the Cycle lane²

If it is not possible to establish a sign following the above priority, speak with your STMS foreman, a new site-specific TMP for this work will be required.

SIGNS ARE ONLY TO BE PLACED IN THE CYCLE LANE AS A LAST RESORT!

Note: When establishing stands and sandbags in the gutter, the STMS must be careful not to block drainage. Leave at least 100mm clear to allow water to flow past.

¹ This is only to be used at the STMS's discretion, as there are several things that may prevent it being a safe option i.e. deep gutters or narrow footpaths/cycle lanes. A clear footpath width as per CoPTTM v4 C13.2.2 must be maintained.

² This would only be acceptable on a few sites. E.g. a narrow street with no shoulder that is against a retaining wall.

Sign Placing:

Issue:



- Sign established in the cycle lane.

Resolution:



- Reposition sign back 5m and establish in parking shoulder.



- Sign established in the cycle lane.



- Reposition sign half on footpath and half in cycle lane.
- Maintain footpath width as per C13.2.2 and leave as much room as possible for the cycle lane.
- Keep sandbags clear of the gutter.

Sign Placing:

Issue:



- Sign established in the cycle lane.

Resolution:



- Use car park, use 10m to allow for sign visibility for passing vehicles.



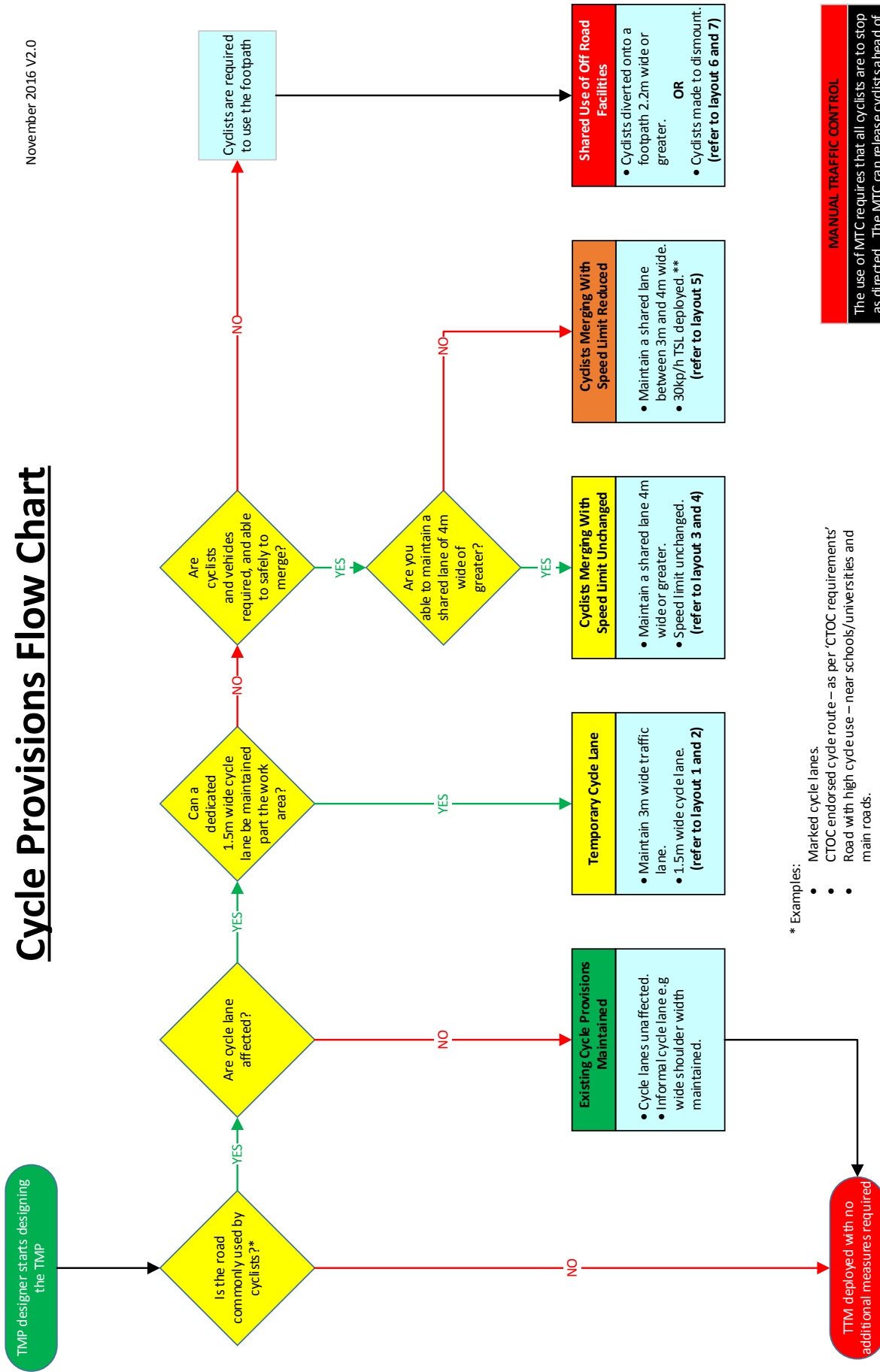
- Sign established in the cycle lane.



- Reposition sign onto the footpath, make sure footpath width as per C13.2.2.

Cycle Provisions Flow Chart

November 2016 V2.0



* Examples:

- Marked cycle lanes.
- CTCOC endorsed cycle route – as per ‘CTOC requirements’
- Road with high cycle use – near schools/universities and main roads.

** If good visibility is available, the site is short in length, and cyclists safety is not significantly compromised by sites conditions, then a TSL is optional – this is at the discretion of the STMS and must be documented.

MANUAL TRAFFIC CONTROL

The use of MTC requires that all cyclists are to stop as directed. The MTC can release cyclists a head of other traffic where the site is long, or where site specific hazards would cause unsafe conditions for cyclists and vehicles in the same lane

Example Set Ups – Temporary Cycle Lane (Variation 1):

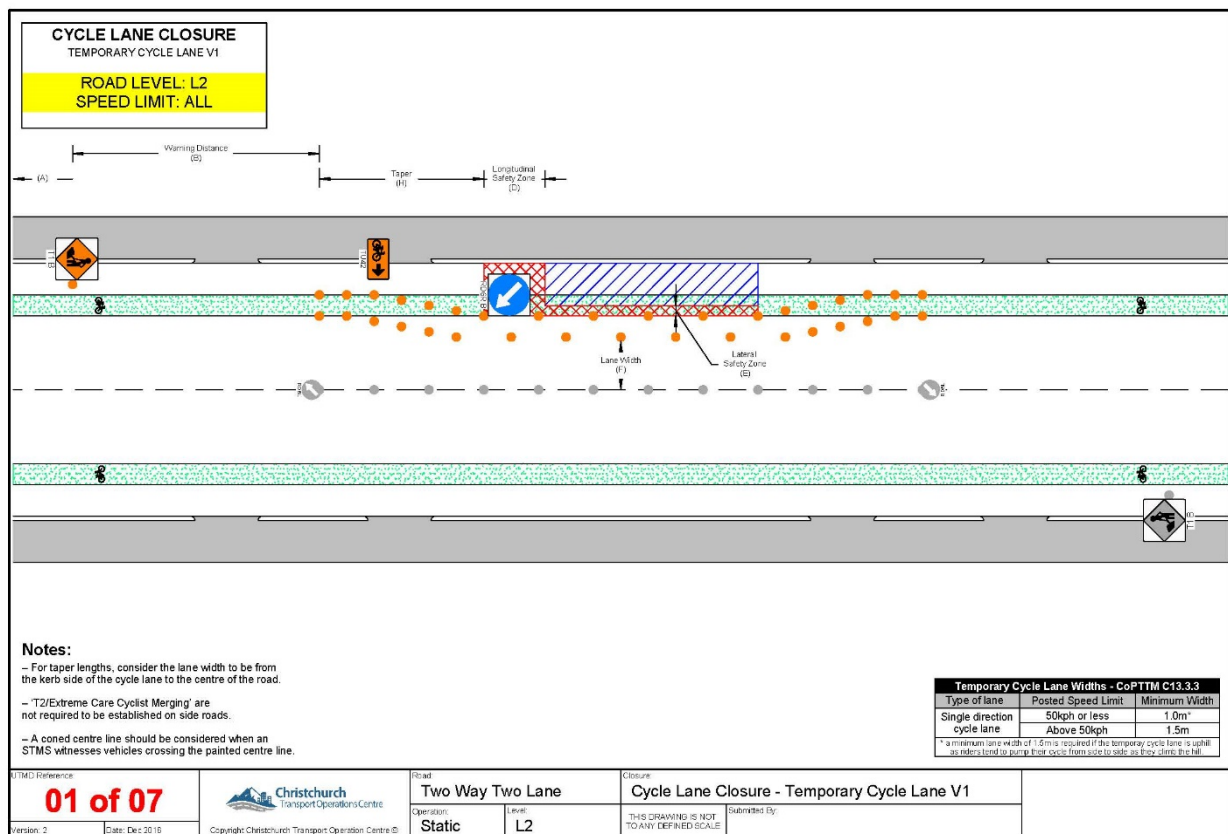
When to use:

- When a 1.5m temporary cycle lane and temporary lane width of 3m or greater between the worksite and centre line can be maintained, or between the worksite and the edge of the carriageway.

Considerations:

- When the worksite is from the edge of the carriageway, a centre line of cones can be established to reinforce the temporary lane. This should be considered if the STMS sees vehicles crossing the centre line.
- If the worksite impacts cycle lanes on both sides of the road, consider 'Temporary Cycle Lane (Variation 2).

Layout 1:



Note: A TSL would not be suitable for this set up, refer to other options covered in the document if it is not possible to maintain a 3m wide temporary lane.

Example Set Ups – Temporary Cycle Lane (Variation 2):

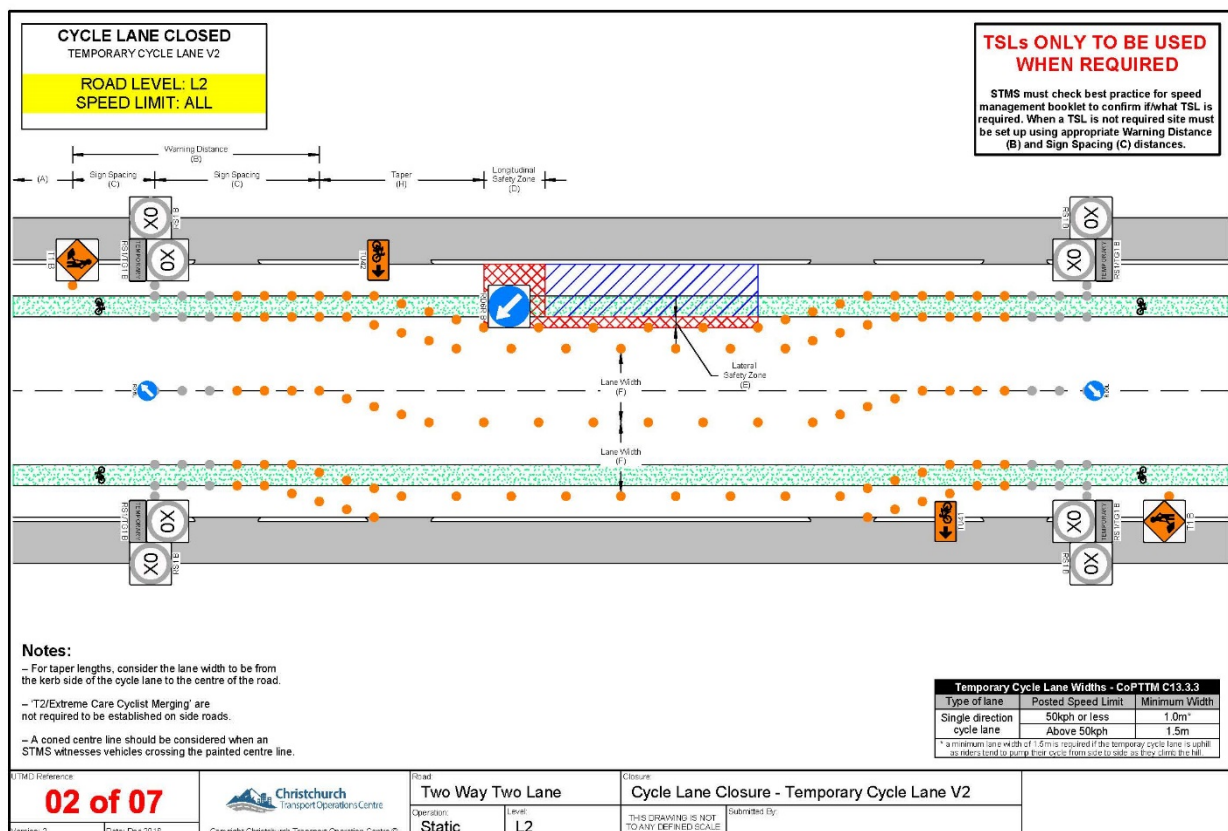
When to use:

- When it is not possible to maintain a 1.5m wide temporary cycle lane and a 3m wide temporary lane between the worksite and the centre line, or between the worksite and edge of the carriageway.
- You will need enough room to establish two 1.5m wide temporary cycle lanes and two temporary lanes at lane width (F) ³.

Considerations:

- A TSL may be required due to temporary lane widths, refer to CoPTTM TSL decision matrix (E2 Appendix B).
- If it not possible to maintain two 1.5m wide temporary cycle lanes and two temporary lanes at lane width (F), consider the 'Merging Cyclists' options.

Layout 2:



³ Refer to CoPTTM v3 C2.8 for lane width (F) requirements.

Example Set Ups – Merging Cyclists (Variation 1):

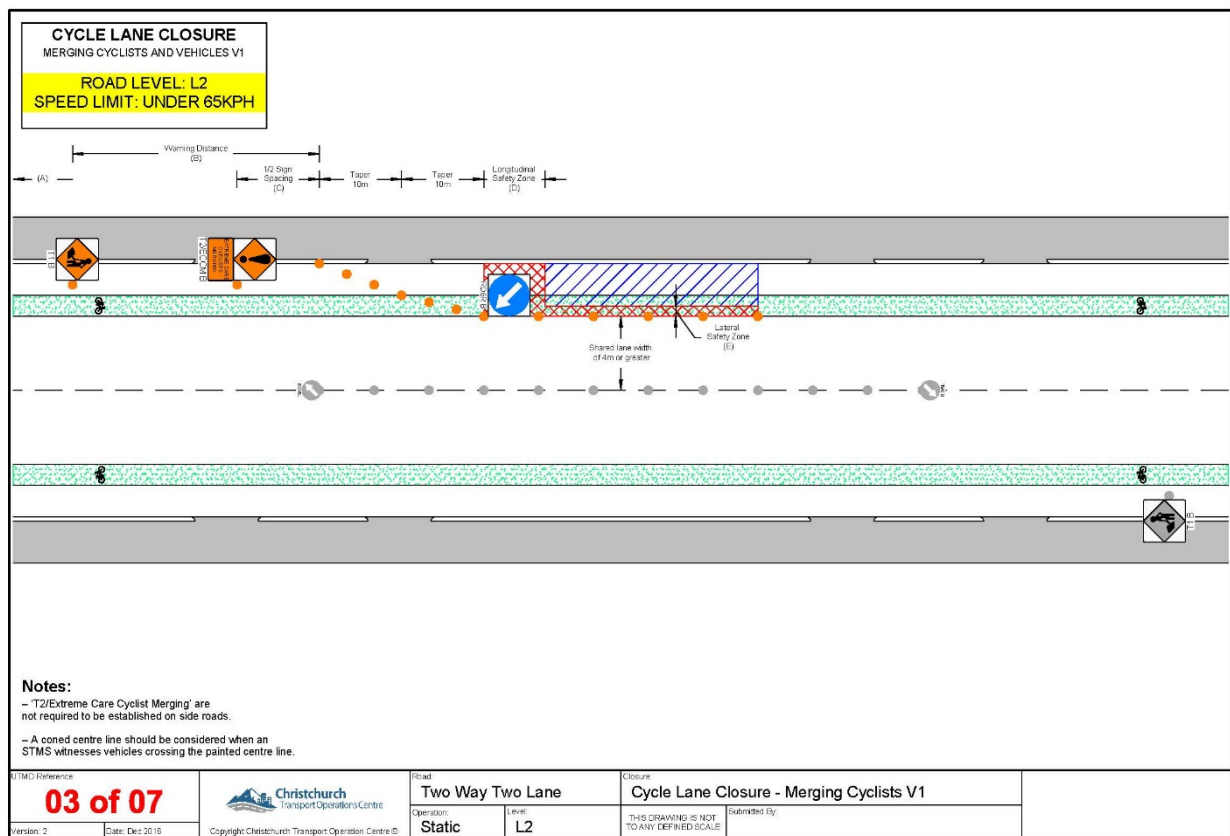
When to use:

- When the worksite is from the edge of the carriageway, where it is possible to safely merge cyclists and vehicles into a shared lane of 4m wide or greater.

Considerations:

- When the worksite is from the edge of the carriageway, a centre line of cones can be established to reinforce the temporary lane. This should be considered if the STMS sees vehicles crossing the centre line.
- If it is not possible to maintain a 4m wide shared lane between the work site and the centre line, consider using 'merging cyclists (variation 2)'.

Layout 3:



Note: A TSL would not be suitable for this set up, refer to other options covered in the document if it is not possible to maintain a 4m wide shared lane or if the worksite is in the centre of the road.

Example Set Ups – Merging Cyclists (Variation 2):

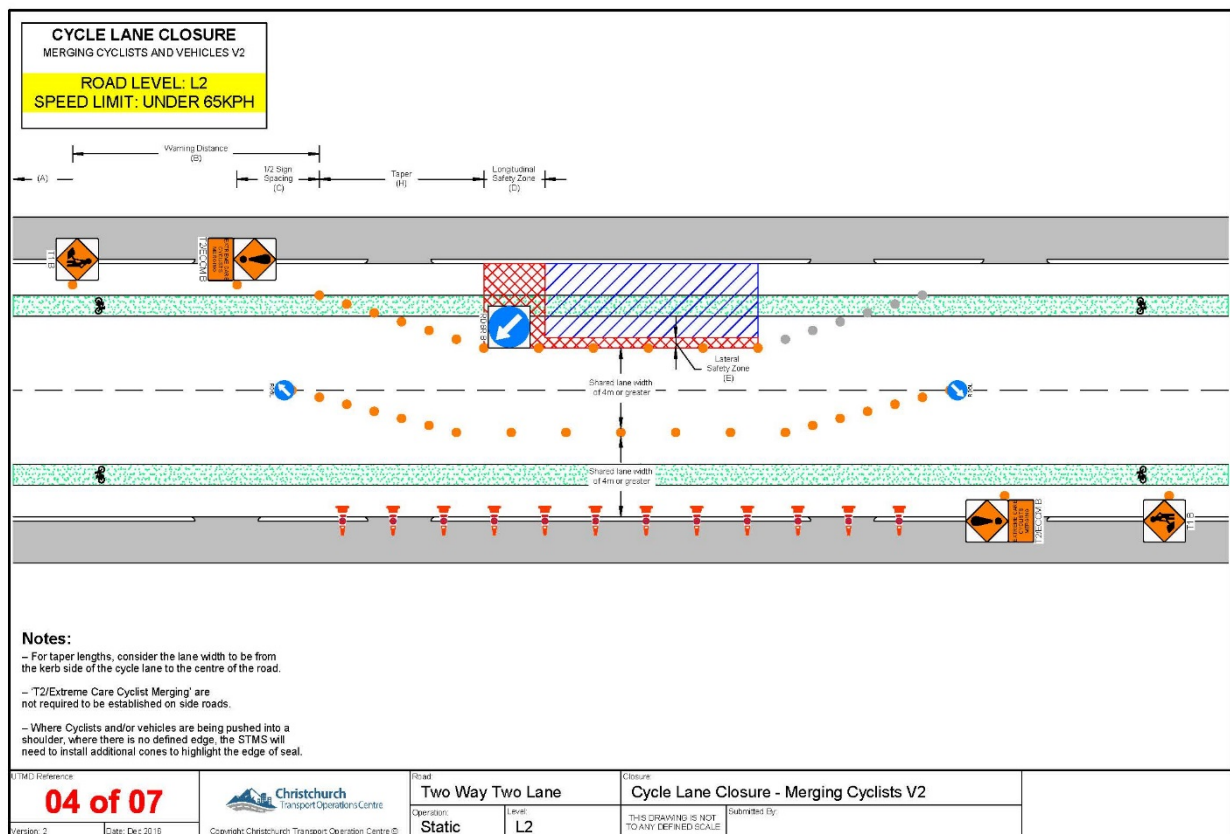
When to use:

- When it is possible to safely merge cyclists and vehicles into shared lanes that are 4m wide or greater past a worksite.

Considerations:

- If it is not possible to maintain 4m wide shared lanes past a worksite, consider using 'Merging Cyclists (Variation 3)'.

Layout 4:



Example Set Ups – Merging Cyclists (Variation 3):

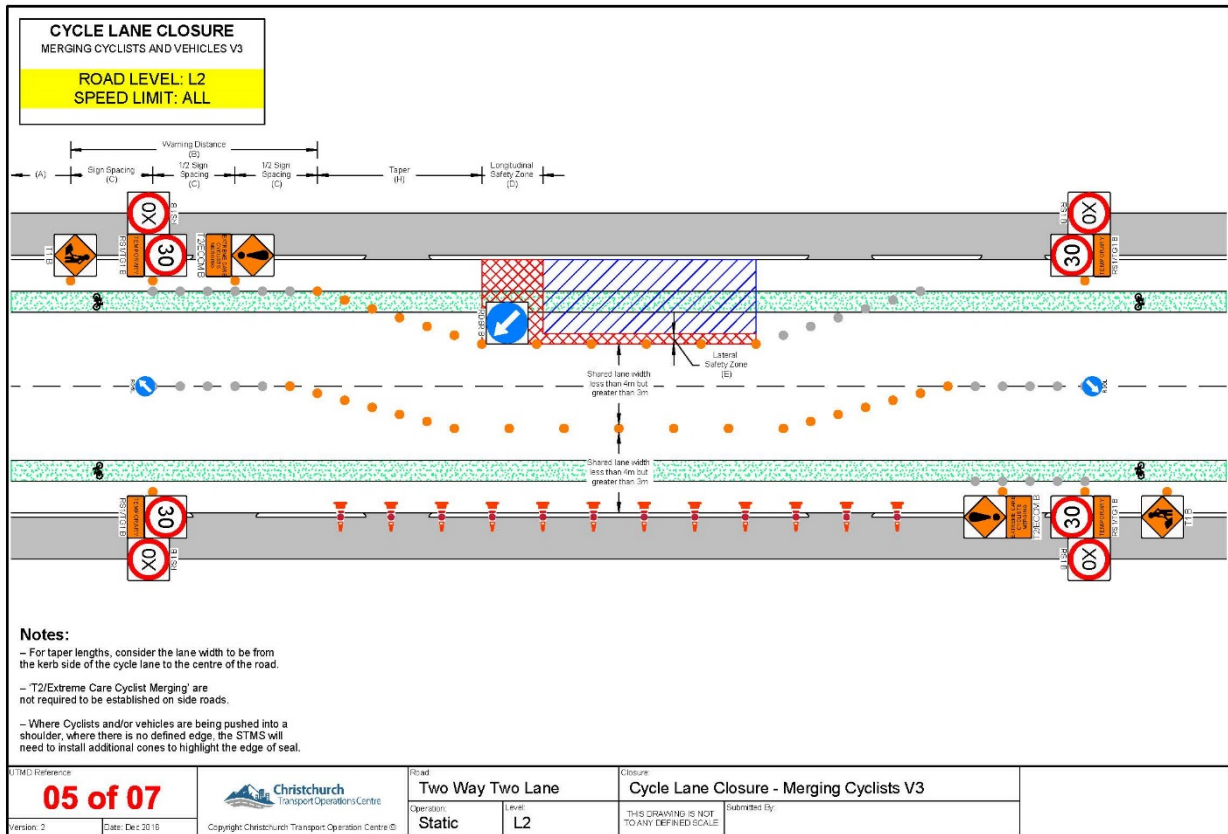
When to use:

- When it is not possible to safely maintain shared 4m wide lanes past a worksite, where it is possible to maintain a shared 3-4m wide lanes.

Considerations:

- If it becomes possible to reduce a site and maintained shared lanes of 4m wide or greater, consider changing to ‘Merging Cyclists (Variation 2)’.
- If it is not possible to safely maintain shared lanes of 3m wide past the worksite, consider the ‘Cyclists onto Footpath’ options.

Layout 5:



Example Set Ups – Cyclists onto Footpath (Shared Footpath):

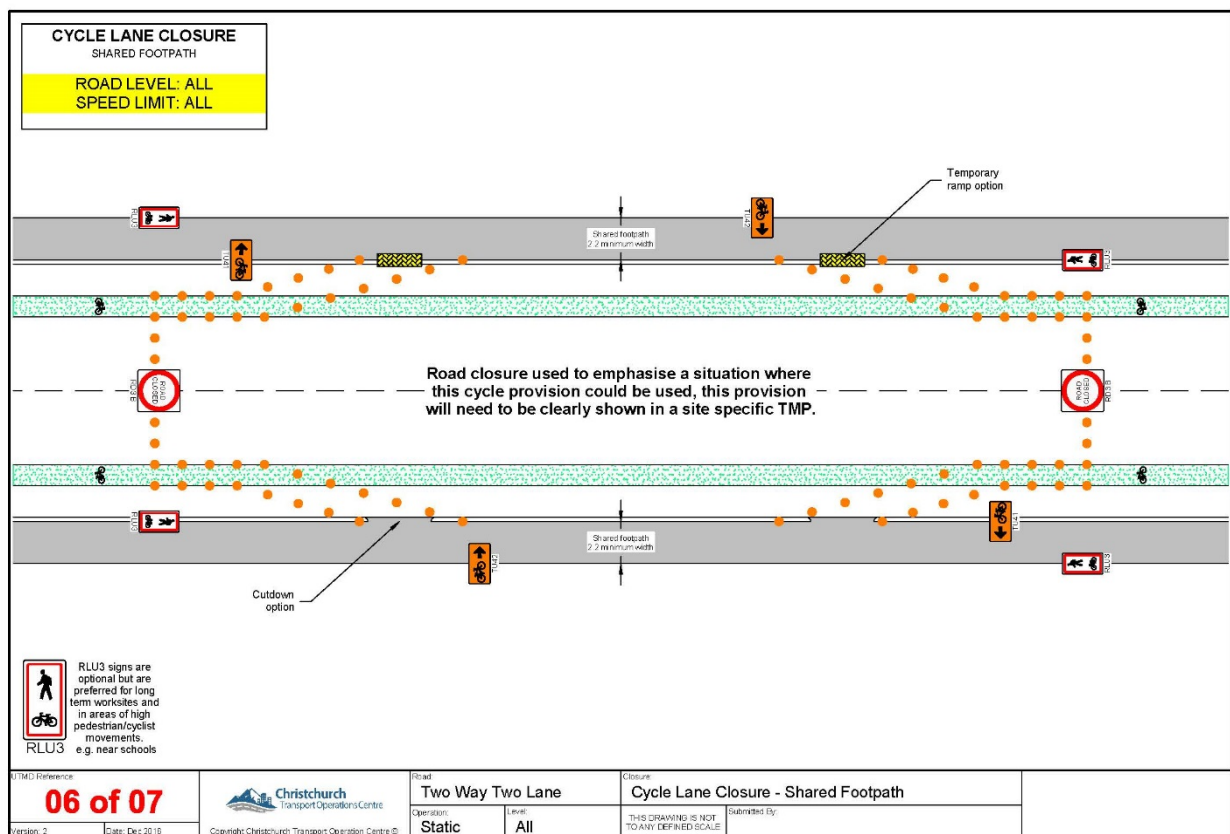
When to use:

- When it is not possible to safely provide provisions for cyclists to continue through/past the site.
- When you have a footpath that is 2.2m wide or greater, that allow for cyclists to share the footpath with pedestrians.

Considerations:

- If it is not possible to safely maintain a 2.2m wide shared footpath, consider the ‘Cyclists onto Footpath (Cyclists Dismount)’ option.

Layout 6:



Note: You will need to be able to provide ramps or use suitable cut downs at locations where cyclists enter onto the footpath and exit onto the road. RLU3 signs are optional but recommended for long-term sites as well as in areas with high pedestrian movements e.g. near shops.

When a road closure is installed, it is preferred to provide cyclists access along the footpath rather than installing a detour.

Example Set Ups – Cyclists onto Footpath (Cyclists Dismount):

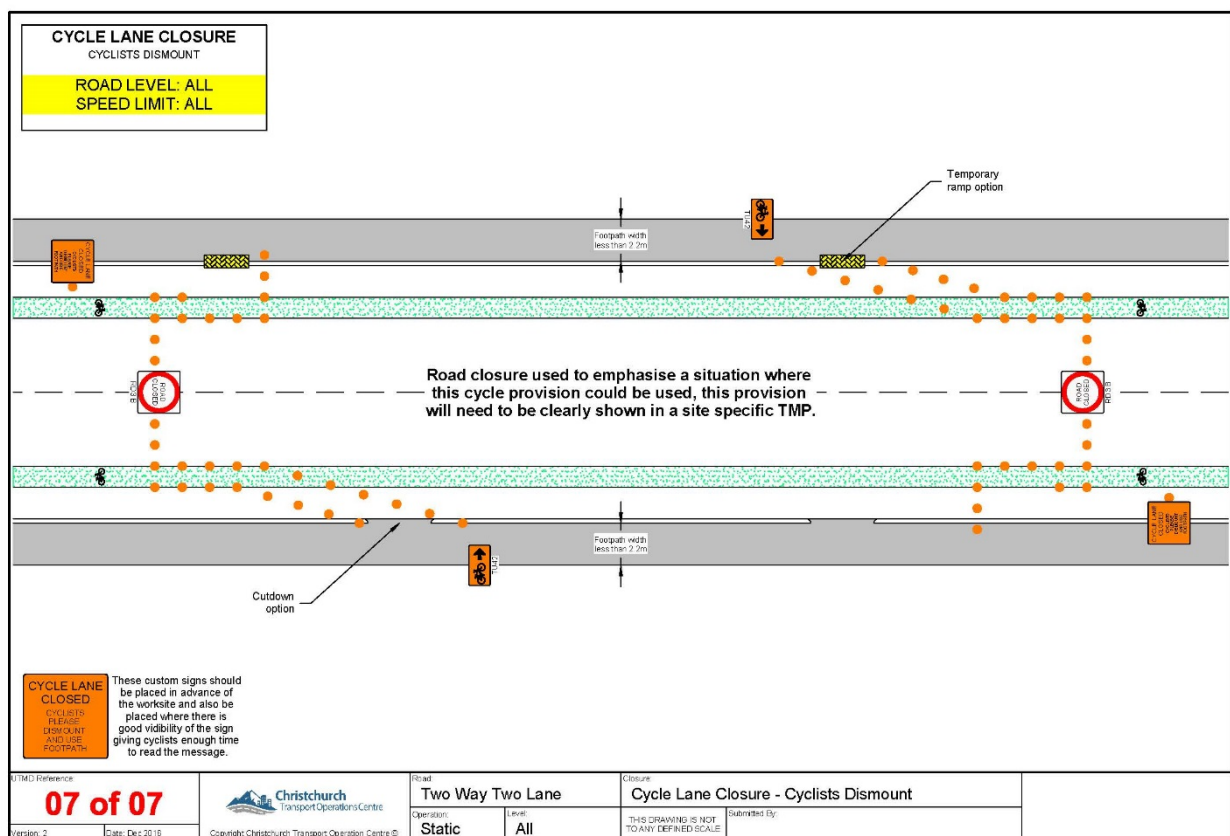
When to use⁴:

- When it is not possible to safely provide provisions for cyclists to continue through/past the site.
- When it is not possible to maintain a shared footpath that is 2.2m wide.

Considerations:

- If it is not possible to safely dismount cyclists, you will need to speak with the RCA about a suitable solutions for cyclists, this could involve a local detour route for cyclists.

Layout 7:



Note: You will need to be able to provide ramps or use suitable cut downs at locations where cyclists enter onto the footpath and exit onto the road.

When a road closure is installed, it is preferred to provide cyclists access along the footpath rather than installing a detour.

⁴ Asking cyclists to dismount is considered the last option, it should only be used if none of the other provisions covered in this document allow cyclists to continue through/past the site safely.