



# Cycle Wayfinding

## Design Guidance Note

Waka Kotahi NZ Transport Agency

24 November 2023

Draft 1.0

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# 1. Introduction

Many towns and cities are developing high-quality networks of cycle routes to enable residents and visitors to use their bicycles for transport, fitness and recreation. In order to ensure maximum use and access to this network a system of directional and wayfinding signage should be installed across cycle networks. Comprehensive directional signs assist cyclists to easily navigate to their trip destinations, builds user confidence in the system, increases personal safety and improves information and access to community facilities. Wayfinding signage can also be used in areas of a network where no actual facilities are necessary or provided currently.

This guidance details the design and manufacture of a comprehensive sign system covering primary and local cycle routes located in on-road or off-road environments.

The implementation of cycle route signs on existing networks should be undertaken as a progressive rollout at priority locations. All new cycle routes should include a sign component.

This guidance has been developed using the *Christchurch Cycle Network Sign Design Manual* (May 2015). Due to changes in the Traffic Control Devices Rules, this document incorporates relevant and approved New Zealand signage. Designers are referred to the Waka Kotahi [sign specification](#) website and the [P24:20202 Specification for Permanent Traffic Signs](#) for relevant and current standards.

## 1.1. Methodology for signing routes

The following process is undertaken when signing a cycle route:

1. Determine the location and context of each route within the overall cycle network. Create a Network Focal Point Map (see Figure 1) to identify main (focal point) destinations and other sub-destinations to be listed for the route being signed and the destinations for other routes indicated at junctions. A key part of this process is to determine the level of signing for each cycle route. This is done according to its position in the cycle network route hierarchy. Level of signing determines the number and type of signs used for each route at a network junction. The creation of a focal point map is important to the success of the wayfinding plan, and designers should resist the temptation to continue to add destinations when working through the methodology.
2. Undertake a detailed sign site assessment to identify suitable locations for signs and to determine the physical condition of the route via a pre-sign and risk assessment survey.
3. Develop a sign schedule (see Figure 2) setting out the sign types and sign content to be used at route junctions.
4. Verify the sign schedule via site inspections and determine the precise locations for all signs. Update schedule with collected/ corrected data.
5. Check all sign designs for accuracy
6. Manufacture signs.
7. Install the signs in the locations identified in the sign schedule and accompanying documentation.
8. Conduct a final site check and verification of the complete sign installation. This is carried out by the sign designer who issues instructions to correct any errors or omissions.

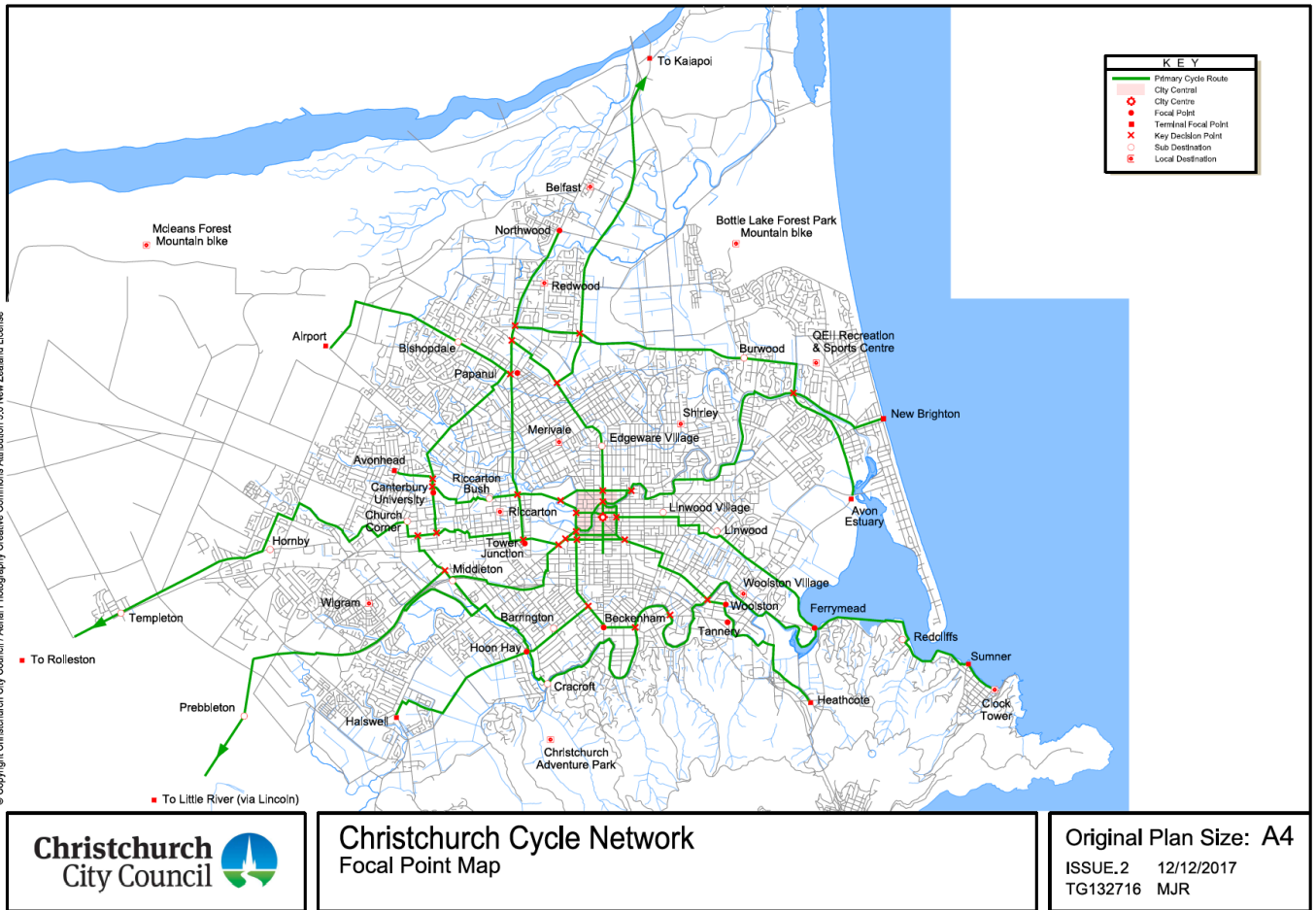


Figure 1: Christchurch network focal point map

Site Ref	Junction description	Sign No	Sign type	Ref No	Travel direction	Sign lettering	Remarks and mounting requirements
6	Wigram Road E end and start/finish of shared path	16	Fingerboard	FBL-1	S	To Canterbury Agricultural Pk →	Mounting on same pole as Sign 14
		17	Fingerboard	FBP-2	E	Middleton 1.1 → City Centre 5.6	Mount on existing pole (in place of existing direction sign board to be removed) at NE side of path/road junction.
		18	Fingerboard	FBP-2	W	Prebbleton 7.3 → Lincoln 15	Mounting on same pole as Sign 17
7	Shared path at W side of future overbridge crossing of Curletts Road.	19	Direction indication	DIP-2	E	↑ Middleton City Centre	Mount on new pole at start of ramp to overbridge
		20	Direction indication	DIP-2	W	↑ Prebbleton Lincoln	Sign mounted backed up with Sign 19
8	Shared path at E side of future overbridge crossing of Curletts Road.	21	Direction indication	DIP-2	E	↑ Middleton City Centre	Mount on new pole at start of ramp to overbridge
		22	Direction indication	DIP-2	W	↑ Prebbleton Lincoln	Sign mounted backed up with Sign 19
		21	Advance direction	ADP-3	E	City Centre → Hoon Hay ----- ← University	This ADP sign indicates destinations for Routes P1 & P8. Mount sign 30-50m SW of intersection. Exact location to be specified. See Schedule Route P8 for details of other fingerboards at this site.
		22	Fingerboard	FBP-2	E	Middleton 200m → City Centre 4.8	Mount on new pole on LHS of street (eastbound) indicating corner bypass into Annex Road
		23	Fingerboard	FBP-2	W	Prebbleton 8.2 → Lincoln 16	Mount on new pole on LHS of street (westbound) prior to bypass end to indicate direction along Magdala Place
		24	Advance direction	ADP-2	W	← Lincoln ----- ← University	This ADP sign indicates destinations for Routes P1 & P8. Mount sign 30-50m SE of intersection. Exact location to be specified.
		25	Advance direction	ADP-2	E	← City Centre ----- ↑ Hoon Hay	This ADP sign indicates destinations for Routes P1 & P8. Mount sign 30-50m N of intersection. Exact location to be specified. See Schedule Route P8 for details of other fingerboards at this site.
10	S end of Annex Road and start/finish of shared path through Marylands Reserve and path through underpass to Annex Road south of Motorway.	25	Advance direction	ADP-2	E	← City Centre ----- ↑ Hoon Hay	This ADP sign indicates destinations for Routes P1 & P8. Mount sign 30-50m N of intersection. Exact location to be specified. See Schedule Route P8 for details of other fingerboards at this site.

Figure 2: Sample signing schedule for a cycle route

## 1.2. Route types

Within a cycling network there are routes that provide connections between areas of high population density and major activity centres, such as public transport nodes, universities, schools, shopping or commercial centres, industrial areas and regional recreational facilities. These routes are usually high-

quality, high-priority routes providing the most direct access with minimal delays. These routes are the most important in the network and will receive significant amounts of quality signing and route information. In this guidance these are referred to as the “**primary routes**”.

**Local routes** connect the “primary routes” and provide local connectivity usually feeding from primary routes to residential streets and local trip-generating facilities. Local routes provide for necessary circulation within the city and suburbs.

There are different sign families for the different types of routes above. Each family uses a different combination of basic sign types appropriate to the needs of that route type (see tables below).

### 1.3. A51 sign family

Table 1 (primary routes) and Table 2 (local routes) show the different sign types used for each sign family/route types. More detail about their use and layout can be found in Section 2. When signing routes that are shared with pedestrians, a pedestrian symbol could be placed on the sign also. The pedestrian symbol could be marked in the space identified for branding if this isn't being used for that purpose.



*Note: The purple square on the left side of the sign identifies the area for optional branding. If the route has no branding, then either reduce the width of sign, leave this square as blue, or use the space for a pedestrian symbol.*

Table 1: Wayfinding Signs for Primary Routes

TCD Rule code	Title	Image	Use
A51-1	<a href="#">Cycle route advance direction - primary route</a>		Advises cyclists the direction to follow at the intersection ahead to reach named destinations
A51-2	<a href="#">Cycle route advance direction map - primary route</a>		Used at complex intersections to indicate a recommended path through the intersection
A51-3	<a href="#">Cycle route intersection direction - primary route</a>		Advises cyclists the direction to follow at an intersection and the distances to named destinations. When used, these signs always display distances.
A51-5	<a href="#">Cycle route direction - primary route</a>		Advises cyclists the direction to follow to reach named destinations. These signs do not include distances and are only for focal points not sub-destinations.
A51-7	<a href="#">Cycle route location plate</a>		Used to denote streets or roads that cross over the top of the cycle routes. Usually fixed to bridges/overpasses. Can be used to denote important adjacent streets.






TCD Rule code	Title	Image	Use
A51-8	<a href="#">Cycle route confirmation direction – primary route</a>		Used to denote distances to upcoming destinations after a major primary intersection.
A51-9	<a href="#">Cycle route network map</a>		Advises cyclists the direction to follow at the intersection ahead to reach named destinations. Used on network gateways to advise people riding bicycles of different network choices from the map location.

Table 2: Wayfinding Signs for Local Routes

TCD Rule code	Title	Image	Use
A51-4	<a href="#">Cycle route intersection direction arrow – local route</a>	Option A 	Advises cyclists the direction to follow at an intersection and the distance to a named destination and the services available at the destination. Two layout options: Option A allows for 1 destination & service symbols, and option B allows for 2 destinations.
		Option B 	
A51-6	<a href="#">Cycle route marker – local route</a>		Used at intersections, path junctions and route turnings to indicate the path of a local route.

## 1.4. A11, A13 & A15 sign families

There are other examples of directional signage for cycling that are a legacy. These have been superseded by the A51 series but may still be on existing routes. New routes should be signed using the A51 series and, as old signs require upgrading along routes, they should be replaced with the A51 series.

## 1.5. New Zealand Cycle Trail (NZCT) sign family

The New Zealand Cycle Trail comprises multiple cycle touring routes throughout the country. Guidance on the planning and design of NZ Cycle Trail routes (including the placement of wayfinding) can be found in the [NZ Cycle Trail Design Guide](#).

Wayfinding is used along a route to specify the route alignment when faced with a variety of options at an intersection or to confirm to riders that they are still on the route. Wayfinding signage should be installed prior to a trail's opening so that users do not get lost.

Table 3 summarises the wayfinding signage used for NZ Cycle Trail routes. When the NZ Cycle Trail crosses into an urban area, the A51 series should be used (see Section 1.3) and the A43-4 NZCT logo added in the purple box area. If signs are displaying multiple destinations where not all of them are on NZ Cycle Trail routes, the NZCT logo should be in line with the relevant destinations.

Table 3: Wayfinding for NZ Cycle Trail routes

TCD Rule code	Title	Image	Use
A43-4.1	<a href="#">NZ Cycle Trail (NZCT) logo</a>		Used on wayfinding for Cycle Trail
A43-4.2	<a href="#">NZ Cycle Trail (NZCT) route arrow</a>		Indicate the path of the route
A43-4.3	<a href="#">NZ Cycle Trail (NZCT) route arrow</a>		Indicate the path of the route with supporting distance information
A43-4.4	<a href="#">NZ Cycle Trail (NZCT) route begins/ends</a>		Used to inform users of the start and end of the trail.
A43-4	<a href="#">NZ Cycle Trail (NZCT) symbol</a>		Used on wayfinding signage for cycle trail.

## 1.6. Sign design elements

All cycle network signs must align with the Waka Kotahi [sign specifications](#) so that they align with the [Traffic Control Devices Rule](#).

Each sign in the A51 sign family features a white bicycle symbol **130 x 85 mm** in size. The bicycle symbol always faces in the direction of travel if a turn is indicated. Where the sign indicates a straight-ahead travel direction or the symbol is at the top, the bicycle faces to the **right** side of the sign.

Destinations are listed on signs with the destination **closest** to the sign site to the top of the sign and other destinations below in increasing distance order. It is an essential principle of signing that once a destination is listed on a sign it **continues** to be listed on all subsequent signs in the series until the destination is reached. Once a sub-destination has been reached, the **next** sub-destination is then listed until it too is reached; a similar principle applies with focal point destinations.

Generally, text elements are at least **43 mm** high, although a secondary destination or distance may be displayed at only **32 mm** high.

Distances given on guide signs should be shown as follows:

- Up to 950m in **100 m** increments to the nearest 100 m (shown as “xxx m”)
- More than 950m in **1 km** increments to the nearest km (shown as “x km”)

although recognising that on these signs decimal point distances **may** be used (e.g. “3.4 km”).

The size and type of direction arrows used on signs are detailed in the Waka Kotahi [sign specifications](#). Direction arrows are located to the side of the sign and pointing in the direction of the upcoming movement. Turn arrows always point **out** of the sign body. “Straight ahead”, “left turn” and “veer left”



arrows are located to the **left** of destination names and “right turn” and “veer right” arrows located to the **right** of destination names.

## 2. Directional signs for cycle routes

### 2.1. Primary route signs

#### 2.1.1. A51-1 cycle route advance direction

This sign advises cyclists the direction to follow at the intersection ahead to reach named destinations (see Figure 3). They are not used in advance of intersections with local routes. Cycle route intersection direction signs only are used at intersections.

The signs are designed to include the following design and sign content requirements:

- Advance direction signs show focal point destinations for all routes passing through a route junction in advance of that intersection. Sub-destinations are not shown on these signs.
- Destinations are grouped according to their common travel direction. The travel/turn direction for each focal point, or group of focal points sharing a common direction, is indicated by an arrow pointing in the travel direction to be taken through the junction.
- Advance direction signs do not show distances. Distances are provided on cycle route intersection direction signs at the actual intersection (see Section 2.1.3).
- The destination name and direction arrow for the route being followed is always shown at the top of the sign. The destinations for other routes crossing or branching at the junction are listed below in order of network importance (routes to more popular destinations are listed ahead of more remote destinations).
- Destinations for branching or crossed routes are grouped with each direction arrow.
- Separate routes are indicated by a horizontal line between the destination(s) for the route being followed and other route destinations.
- Keep destinations listed on advance direction signs consistent with cycle route intersection direction signs and other signs used on all routes feeding into the junction.



Figure 3: Advance direction signs for primary cycle routes (with example installation on the right)

The name of the route being followed can be included on the advance direction signs. The layout of this type of sign is similar to standard advance direction signs with the addition of a facility name box at the top of the sign. Cycleway names are never shown for other routes, only for the route being followed.

The designer should refer to Section 4 for sign placement.

### 2.1.2. A51-2 cycle route advance direction map

At large, complex, multi-legged intersections, often with traffic islands, signalised crossings and divided roadways, it may be advisable to graphically indicate a recommended path through the intersection to the user as an aid to their navigation. In these situations (which often may also involve on-road to off-road transitions) an advance directional graphical layout sign (A51-2) can be used in advance of the intersection (see Figure 4). As these signs have to be individually designed for each intersection they are used sparingly when normal advance direction signs do not provide adequate indication of the correct path to take. Ground markings and coloured surfacing may be other tools to help with navigation.



Figure 4: Advance direction map sign (with example installation on the right)

The signs are designed to include the following design and sign content requirements:

- The advance direction map signs are used only in advance of complex intersections where it is necessary to indicate to the user a recommended path through the intersection. This may involve off-road to on-road transitions through multi-legged intersections often with traffic islands, signalised crossings and divided roadways.
- The sign is an individually designed variation of the standard advance direction sign and is used only as an advance direction sign in place of the standard sign. Refer to the notes for Advance Direction signs.
- The suggested travel paths for all indicated routes is shown by a **50 mm** wide line in blue.
- Streets crossed or followed by indicated routes are shown in 40% grey tone **80 mm** width for major roads and **65 mm** width for minor roads. The name of the cross street is shown in **30 mm** high black lettering aligned to the street.
- The graphical layout should aim to clearly represent the approximate shape of the intersection and the angles of the street junctions to further assist with navigation.
- Sign width is determined using standard sign spacings. Graphical elements should be carefully spaced to ensure good legibility.
- This type of sign can be used in place of directional indicator signs where such signs are used at route turnings, or along difficult to follow routes as an aid to wayfinding.
- If destination names consist of two words, these can be stacked (with a **25 mm** vertical spacing) for more compact layout. Where two separate destinations are listed the normal vertical spacing of **40 mm** should be used.

The designer should refer to Section 4 for sign placement.

### 2.1.3. A51-3 cycle route intersection direction (fingerboards)

This sign type advises cyclists the direction to follow at an intersection and the distances to named destinations, typically on primary routes. Typically, these signs show one destination each (see Figure 5), although two destinations on a sign are also allowed. Distances are only shown on intersection direction fingerboards when used at junctions with other primary or local cycle routes. At all other route turnings where they are used, distances are not listed.



Figure 5: Cycle route intersection direction sign (with example installation on the right)

Destinations typically shown on intersection direction signs may consist of a sub-destination and the next focal point destination beyond.

Two focal points are seldom listed unless one is a terminal focal point (the destination at the end of the route). Avoid the use of terminal destinations unless the route has no further sub-destinations, in which case two destinations (the next focal point and the terminal destination) can be used on the sign.

In a situation where two or more routes share a common path (overlap each other) for a short distance, individual intersection direction signs for each of these routes are maintained and erected together and stacked one under another.

The signs are designed to include the following design and sign content requirements:

- Intersection direction signs usually indicate a single route. The only exception to this established practice is in situations where routes overlap for a complete route sector (between focal points). In these rare instances both routes will have the same destinations so only one set of signs need be used. In cases where two overlapping routes share the same sub-destination but have different focal points, it is prudent to just include the sub-destination on only one of the signs.
- Text and numbers are shown on intersection direction sign as per Waka Kotahi sign specifications.
- The maximum height of an intersection direction sign is **two** lines of text – typically, a sub-destination and a focal point. On routes that need to indicate an additional focal point off the route but with a strong user demand (e.g. City Centres) an additional intersection direction sign should be used immediately underneath.
- Multiple-line intersection direction signs are usually very large signs with high wind loading issues and, if used, should be kept as compact as possible to reduce wind loading. This can be done through abbreviating text or using the more condensed version of the sign typeface (AS1744:2015 Series C).
- A direction chevron, located on the intersection direction sign at the opposite end to the sign mounting, points towards the direction of travel.
- Destination names are aligned (justified) to the distance numerals or to the direction arrow if distances are not used.
- Distances to destinations are shown (as per Section 1.6 of this guidance) and located between the destination name and the direction arrow.

- A white bicycle symbol on a blue background is located at the mounting end of each sign face, facing in the direction of travel on both sides of the sign.
- The maximum length of a cycle route intersection direction sign is **1200 mm**.
- Primary route intersection direction signs are double-sided.

For ease of navigation it is preferable to locate all intersection direction signs on the one pole. Signs in split locations are carefully sited to be 'read' intuitively by the user. For example, at a right turn of the route it may be useful to locate one intersection direction sign on the right side of the street in the direction of travel. This draws the eye of the user in the direction of travel (right turn). Locating signs outside the users' normal field of vision is to be avoided. Ideally, intersection direction sign pairs for the same route are mounted at the same level but this may not be possible due to mounting system limitations. Always consider sign visibility from different approaches for large sign installations when multiple routes pass through junctions.

Cycle route intersection direction signs may be used in conjunction with road pavement markers (RPM) to indicate the turning, particularly if this is a transition from on- to off-road or vice versa.

The designer should refer to Section 4 for sign placement.

#### 2.1.4. A51-5 cycle route direction

This sign (see Figure 6) advises cyclists of the direction to follow to reach named destinations.

Cycle route direction signs are used to mark primary and local routes in the cycle network where A51-3 intersection direction signs are not easily seen or followed. Typically, these signs list only focal point destinations for the route being followed.

Direction arrows are located to the side of the sign and pointing in the direction of the upcoming movement. A white bicycle symbol is centred in the blue sign header area.



Figure 6: Cycle route direction sign (with example installation on the right)

If two overlapping routes share a common path for a full network segment (between two focal points) it is possible to combine signs for both routes for the route segment and only use one sign for both routes, as these will share the same sub-destination(s) while showing the focal points for each route.

In some situations, it is desirable to list (in addition to a sub-destination and focal point for a route) an additional prominent focal point destination off that route, but easily accessible from it.

Cycle route direction signs are not used to indicate named facilities.

The signs are designed to include the following design and sign content requirements:

- Cycle route direction signs are used for a single route. The only exception to this established practice is in situations where routes overlap for a complete route sector (between focal points).

- In situations where signs are used at junctions of two or more cycle routes, distances are shown. When used along a route to indicate a change of direction only, distance details are not used.
- Destination names are aligned (justified) to the distance numerals or to the direction arrow if distances are not used.
- Where there are two or more destinations sharing the one direction arrow, the arrow is centred vertically on the destinations.
- Distances to destinations are shown and located between the destination name and the direction arrow.

The designer should refer to Section 4 for sign placement.

### 2.1.5. A51-7 cycle route location plate

The purpose of this sign (Figure 7) is to advise cyclists of the name of roads that cross a cycle route and are part of another cycle route.



Figure 7: Location plate

The location plate sign lists only the name of the road or cross street. This sign does not show distances or direction arrows though in rare cases a direction arrow may be used as a further aid to route navigation where the associated underpass has a bend in the path direction or change of grade. This type of sign is not used to indicate named facilities.

Location plate signs are not used to mark junctions with other routes; cycle route intersection direction signs are used for this.

Location plate signs are used for primary and local routes. They may be used on local routes where the cross street or road is a primary cycle route.

The designer should refer to Section 4 for sign placement.

### 2.1.6. A51-8 cycle route confirmation direction

The purpose of this sign (Figure 8) is to confirm the route that cyclists are on and advises the distances to the named destinations. In that respect, it is similar to an A51-5 sign but includes distances.



Figure 8: Confirmation direction sign (with example installation on the right)

Confirmation direction signs are used mainly on limited access facilities such as longer distance shared paths and separated cycleways, as well as cycle touring routes, to indicate travel distance information

(km) to upcoming destinations along the route. This type of sign also provides confirmation to users that they have joined the correct route or are continuing on it.

Whilst mainly used on primary routes, they may in specific instances be used on local cycle routes following remote intersections or after complex intersections to reassure riders that they have made a correct turn and are following the right route.

It is recommended that a maximum of **six** destinations per sign be listed. These are listed in distance order, so the first destination is first in the list. Focal point destinations, terminal destinations and the next sub-destination can be listed on reassurance destination signs. Sign content is as follows:

- Destinations are listed flush left.
- On signs where all listed destinations are on the one branded route, the route logo will be shown in this location.
- On signs for an unbranded route, branding logos for all intersecting routes will be shown to the left of the relevant destination.
- Branding is positioned and sized according to the Waka Kotahi sign specifications.

The name of the route being followed can be included on these signs (e.g. “Northern Line Cycleway” etc). The layout of this type of sign is similar to standard reassurance direction signs with the addition of a facility name box at the top of the sign. Cycleway names are never shown for other routes, only for the route being followed.

The designer should refer to Section 4 for sign placement.

### 2.1.7. A51-9 cycle route network map

Cycle network maps (Figure 9) can show people the many possibilities a cycle network can offer them to navigate around their locality and further afield throughout the region. Cycle network maps can also show local routes centred on educational facilities, large workplaces, shopping centres, transport nodes, and other trip attractors. Cycle network map signs complement route signs as they indicate multiple route options and other wayfinding possibilities within an area.

Cycle network maps show not only cycle network routes but also the local street system, local/regional facilities, and points of interest. They can be very useful aids to navigation when placed at key entry and exit points to a town or inner urban area, at the ends or entrances to linear pathways and at key network gateways that provide access to a large section of the cycle network (e.g. multi-cycleway junctions, bridges, city centre).

The map sign shows the location of the user usually near the centre of the map, which then shows the surrounding street network with a coverage of approximately 6km x 6km. High quality street maps are used and typically include the following features:

- road network
- existing Cycle Network routes (current route highlighted) and cycle parking
- public transport hubs (major bus stops, rail stations, ferry terminals)
- parks and sporting or recreation grounds



Figure 9: Network map sign

- local suburban/community centres
- major destinations such as shopping centres and employment nodes
- educational facilities
- police stations and hospitals
- public libraries, community halls and places of worship
- public toilets
- waterways and other significant natural landmarks

Maps are oriented north in line with conventional street directory mapping. Maps are produced at an appropriate scale to ensure the cycleway and surrounding features are easily identifiable with a “you are here” indicator approximately in the centre of the map. Significant trip attractors that exist outside the map area are marked with text and an arrow near the edge, indicating the direction of the facility or destination (e.g. “CBD 3 km”, “NEXTTOWN 5 km”).

Map signs are designed to include the following design and sign content requirements:

- Map signs for on-road routes are sited in an off-road map viewing bay or in parklands adjacent to the street or road being followed. Ideally, they are located to allow path users to view the map when facing in a northerly direction to facilitate easy map orientation (if a north-oriented map is used). Map viewing bays are not recommended on roads with a speed limit greater than 60 km/h.
- When siting map signs adjacent to paths and off-road cycleways where no viewing bay is provided, map boards are located **at least one metre** from the path edge to ensure there is sufficient space to move off the path to read the sign and not create a hazard for other path users.
- Map signs are mounted flush with their support posts and finished so that they do not present sharp edges to users or protrude into the operational space of the adjacent cycleway or pathway.
- To indicate desired/safe rest stops along cycleways, the location of map signs can be co-located with other path infrastructure such as seats, lights, racks, shelters etc. Locating signs in lit areas is also recommended to extend the functional hours the signs are usable.
- Some information signs can incorporate photographs, illustrations and explanatory text in addition to maps. These signs are sized so that any readable information (text or photographs etc) is a minimum of **700 mm** from the ground and a maximum height of **1900 mm**.

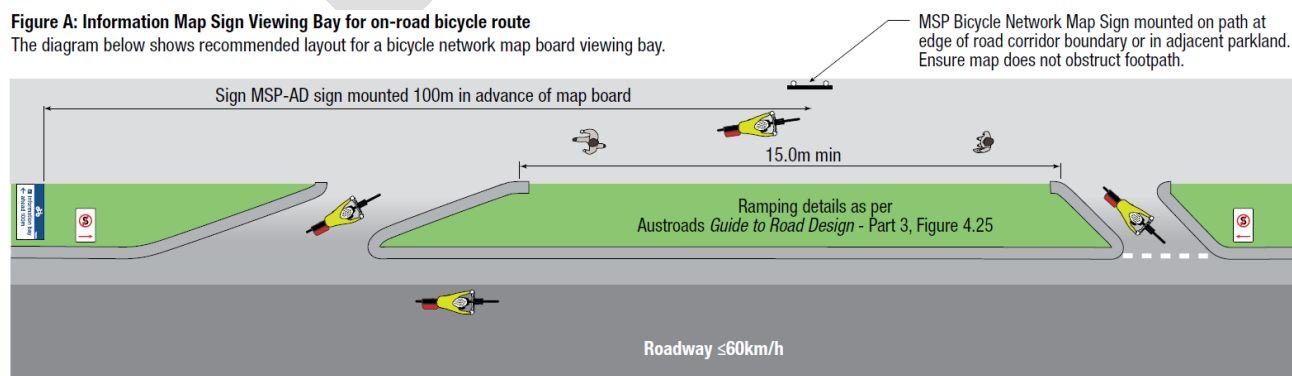
Map signs are positioned where cyclists can easily translate the information from the map to the surrounding environment. All maps are positioned with maximum visibility for pathway users travelling in all directions. If a map board is positioned near a major road, the map is located in an off-road map viewing bay visible to cyclists entering, exiting or passing the map bay (see Figure 10).

Careful siting of the map board for maximum visibility also provides casual surveillance from passers-by, which may discourage vandalism to the sign.

If it is not in a location that is obvious from the road approach, an additional sign can be erected **50-100 m** in advance of a map viewing bay associated with a street or road (use white A20-S10 information symbol on blue background).

**Figure A: Information Map Sign Viewing Bay for on-road bicycle route**

The diagram below shows recommended layout for a bicycle network map board viewing bay.



*Figure 10: Cycle Route Network Map - siting details for off-road use*

Notes:

- The viewing area surrounding the map board should be paved to minimise erosion.
- Parking restriction signage should be erected to prevent overparking of the entrance and exit of the map viewing bay.

## 2.2. Local route signs

### 2.2.1. A51-4 cycle route intersection direction arrow – local route

This sign advises cyclists of the direction to follow at an intersection and the distance to a named destination and the services available at the destination.

The Traffic Control Devices Rule provides two options for this sign:

- Option A (Figure 11) – **one** destination and service symbols (Up to six “A20-S symbols” or “A30-S symbols” or “A51-S symbols”)
- Option B (Figure 12) - **two** destinations

When signing local routes, intersection direction signs are usually used as the first and last sign of the route with all intermediate intersections/turnings indicated by local route markers.

At the junction of a local and primary route, it is usual practice to erect A51-3 cycle route intersection signs as well as the local intersection direction sign.

Local intersection direction signs are also used to mark short local routes and indicate local destinations in areas where there are no primary cycle routes. Pictograms/symbols can be used on the sign to indicate service and facilities available at the destination. Some existing pictograms are listed in **Appendix A: Symbols/Pictograms**; more are currently being developed.



Figure 11: Intersection Direction arrow - local route (option A)



Figure 12: Intersection Direction arrow - local route (option B)

Local intersection direction signs are designed to mount with standard street name signs. Where possible it is preferable to mount these intersection direction signs on the same pole as street name signs and below these signs.

Local intersection direction signs are usually only located at intersections and point to the route travel direction along a street or path. Intersection direction signs are sited clear of turning traffic and in full visibility of cyclists using the route. Intersection direction signs located near roads are positioned to minimise confusion with existing road signs.

For ease of navigation, it is preferable to locate all intersection direction signs on the one pole in a prominent location.

The designer should refer to Section 4 for sign placement.

### 2.2.2. A51-6 cycle route marker – local route

The purpose of this sign is to advise cyclists the direction to follow to remain on a route. Route markers are an additional aid to navigation and are used to supplement direction signing on routes that are significant through-routes (e.g. lengthy off-road trails). Route markers are used to supplement the use of



cycle route intersection direction signs and are generally used to indicate a route turning and for reassurance on routes with few junctions and route turnings.

There are two types of route markers permitted in the Traffic Control Devices Rule:

- Option A – Vertical (see Figure 13)
- Option B - Horizontal

Route markers are used only on local and recreational routes where infill signs are needed to clarify route directions. When used away from intersections, route markers on rural routes are placed at **5 km maximum spacing** and are generally located on existing signposts or new route marker posts where there are no existing signposts. Spacing may be increased to **10 km** along off-road paths or other remote routes where there are limited or no intersecting roads/ paths along the route. In urban environments, place markers on continuous or branded recreational routes at **1 km** intervals, increasing to **2 km** where there are no intermediate junctions.

Markers can also be used on trails as advance direction and reassurance signs to supplement cycle route intersection direction signs.



Figure 13: Cycle Route Marker

Route markers are designed to include the following design and sign content requirements:

- Horizontal markers are double-sided, horizontal-layout and are designed to mount on poles as mini-cycle route intersection direction signs.
- Vertical markers are single-sided plate-type markers designed for pole mounting.
- Markers always indicate a single route.
- Markers located near roads are positioned to minimise confusion with road signs.
- A white bicycle symbol (only **120 x 80 mm** in size) in a coloured background patch is located at the mounting end of horizontal markers and at the top of vertical markers.
- A blue direction arrow points towards the direction of travel.
- Route branding may be included in the sign layout of route markers. Branding may be separately affixed to poles above markers.

The designer should refer to Section 4 for sign placement.

### 3. Route branding

Route signs, such as on the [NZ Cycle Trail](#), that include route branding indication are designed to include the following design and sign content requirements:

- Logos are simplified design and instantly recognisable. Use of colour in logos is minimised (one or two colours only). Select the logo colour(s) to provide maximum contrast with the sign background.
- When route branding logos are used on signs, they should be placed on the mounting pole side of the sign (purple square on approved signs).
- Branding logos match the height of the destination lettering. Where different destinations use different branded routes, locate the logos for each branded route on the same line as the related destination.

- Route branding and route numbering are separate systems with potentially overlapping segments. Always show route numbers closest to the destination name.
- On direction signs where all listed destinations are part of a branded route, show the route branding logo on the left side of the blue sign header.



Figure 14: Cycle wayfinding on a NZ Cycle Trail branded route

## 4. Sign placement

### 4.1. Location of signs

Signs are ideally located on the left side of the road/path with good approach visibility, although there may be situations when they have to be located elsewhere.

Signs should be mounted in full view of road users. They are located so that they provide clear unambiguous directions at critical turning points or junctions. Place signs where their message will not be compromised or overwhelmed by proximity to other road signs or structures.

Site cycle network signs so that they do not diminish the effectiveness of, or conflict with, existing road signs and create ambiguity for other road users.

Cycle network signs, like highway signs, are a discrete system designed to guide cyclists through often complex road environments. Integrated cycle route sign messages are not included with, or mounted on, main/arterial road directional signs or sign supports.

Minimise sign clutter by utilising existing sign poles and street poles where this does not compromise the effectiveness of the direction sign or the host sign. Mounting on existing power poles is permissible as is the co-use of parking sign poles as a clutter reduction measure.

More specific sign placement information for each type of route sign can be found in **Appendix B: Wayfinding signage location table**.

### 4.2. Sight distances and sign visibility

Advance direction signs placed before cycle route junctions/ decision points are located to take into account cyclist travelling speeds. This is particularly important in hilly areas.

When placing advance direction signs, it is essential to consider all local variables such as slope and sight distances. Locate signs to provide adequate warning of a change of direction depending on the site. Greater distances are to be allowed where there is a downhill grade towards the intersection or where the approach visibility is restricted. For grades steeper than **8%**, additional wayfinding signs are recommended in advance of the intersection.

It is important to place signs consistently. If two signs indicating separate directions cannot be mounted on the same pole on one corner of an intersection due to site conditions, consider separately mounting these

signs. Consider also mounting signs on existing sign poles or power poles provided that such mounting offers superior sight lines and visibility for the sign(s).

### 4.3. Clearance and mounting

Signs should normally be mounted at a clearance height of **2.5 m** to be clear of path users. Signs mounted higher than 2.5 m become less conspicuous, as they will tend to be outside path users' field of vision. Sign supports should have a minimum of **0.5 m** clearance from the cycleway or roadway. Do not mount signs so that they overhang the roadway or interfere with turning vehicles.

Where signs are placed well off the through route, they may be mounted lower than **2.5 m**. In some situations, this may have urban design benefits.

Where there is a risk that signs could be rotated by either wind or vandalism, use anti-rotational fittings or fixing screws. This is particularly important on cycle route signs that indicate travel direction at intersections.

Mount map and information display signs with sufficient horizontal clearance (**1.5 m** minimum, **2.0 m** preferred) to permit cyclists and other path users to comfortably view the sign and still provide clearance to other street/path users.

Figure 15 and Figure 16 illustrate typical clearances for wayfinding signage.

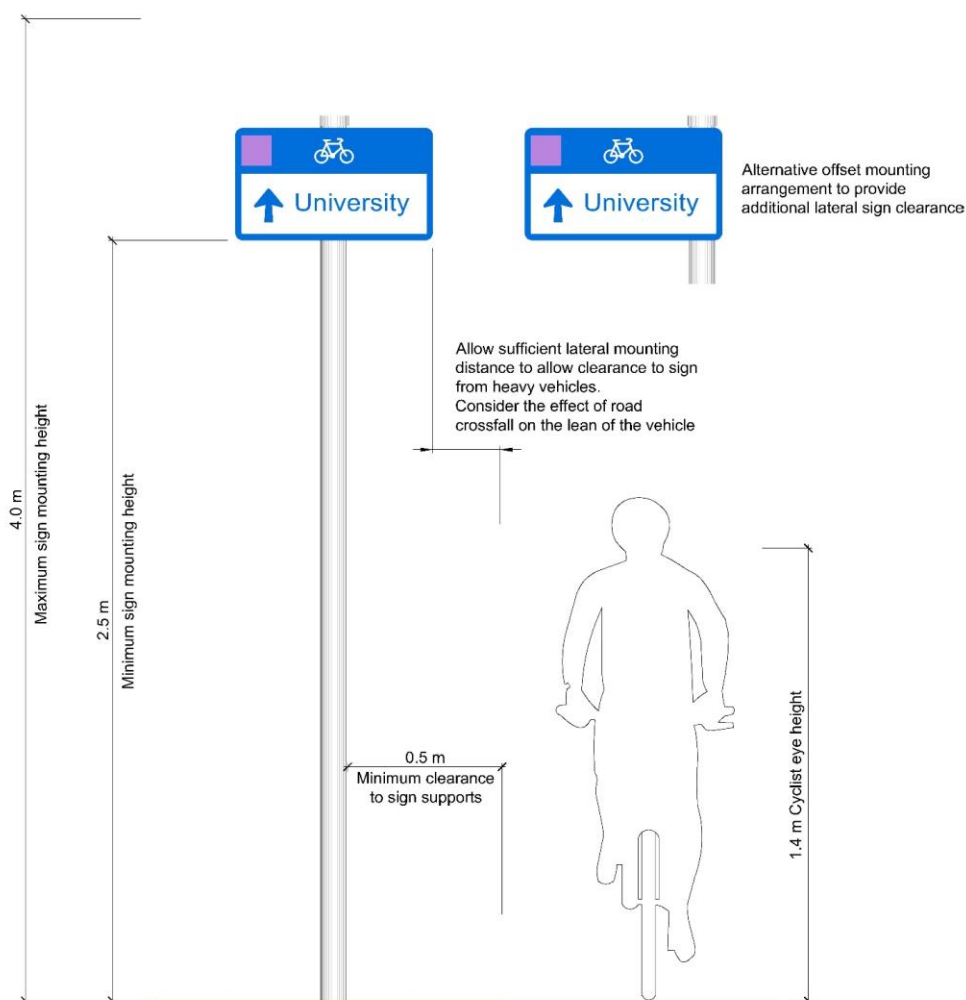


Figure 15: Clearances for cycle wayfinding signage

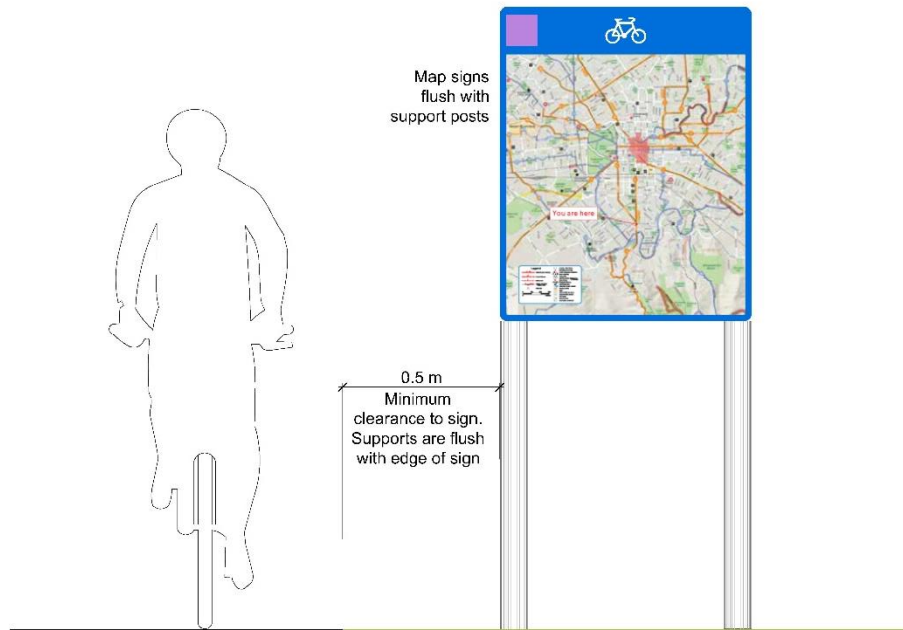


Figure 16: Clearances for map display boards

#### 4.4. Wayfinding for incomplete networks

Implementing network signage can be difficult when parts only of routes and networks are implemented. Some suggestions for interim networks include:


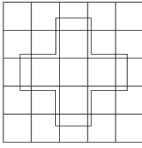

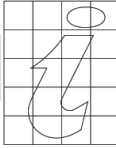

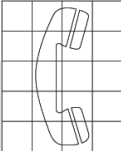

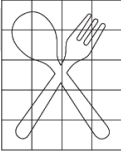

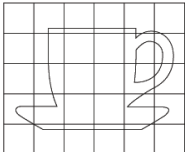



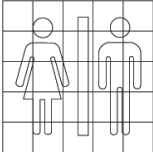
- If ultimate terminal destinations cannot be signed, use intermediate focal points for now and/or leave space for extra signs in the future.
- Accept that signs can be updated for minimal cost if the posts and locations are correctly installed.
- Setting up the focal point planning map at the start is very important, as it is always tempting to add more destinations to signs.

### 5. Construction, materials, and installation

Signs specified in all parts of the TCD manual for the use on all roads should conform to Waka Kotahi [P24:2020 Specification for Permanent Traffic Signs](#), in respect of:

- materials
- erection of signs
- methods of construction
- serviceability
- design life

## Appendix A: Symbols/Pictograms

Sign Manual	Rule	Traffic Sign grid image
 PHM - Hospital or Medical Centre	A20-S11	
 PTI - Tourist Information Centre	A20-S10	
 PPT - Public Telephone	A20-S12	
 PRE - Restaurant	A20-S9	
 PCA - Cafe	A20-S8	
 PLO - Lookout	A30-S3	
 PMF - Public Toilets	A20-S13	

## Appendix B: Wayfinding signage location table

Sign	Location	Notes
<b>A51-1</b> Cycle Route Advance Direction sign	Design speed: <ul style="list-style-type: none"> <li>• Above 30km/h = <b>50-70 m</b> in advance of the intersection</li> <li>• 30km/h = <b>30-50 m</b> in advance of the intersection</li> <li>• Below 30km/h = <b>30 m</b> in advance of the intersection</li> </ul>	Mounting distance and actual sign siting depend on the road/path situation. On a downhill approach, signs may need to be located at the extent of the range or further back up the hill to account for a high approach speed.
<b>A51-2</b> Cycle Route Advance Direction Map	Design speed: <ul style="list-style-type: none"> <li>• Above 30km/h = <b>50-70 m</b> in advance of the intersection</li> <li>• 30km/h = <b>30-50 m</b> in advance of the intersection</li> <li>• Below 30km/h = <b>30 m</b> in advance of the intersection</li> </ul>	Mounting distance and actual sign siting depend on the road/path situation. On a downhill approach, signs may need to be located at the extent of the range or further back up the hill to account for a high approach speed.
<b>A51-3</b> Cycle Route Intersection Direction signs (fingerboards)	Mount intersection fingerboards in a highly visible location so that they can be clearly read by cyclists at a <b>minimum of 15 m</b> from the intersection.	Cycle route intersection direction signs are located at intersections and indicate the travel direction along a street/road or path. The signs are sited clear of turning traffic and in full visibility of the route to minimise confusion at path junctions, particularly where there are multiple junctions or other road signs and names. At major intersections it is important to place intersection direction signs in a logical vertical order so that cyclists can easily follow the signs for a particular route. Generally, signs pairs for a continuous route through a junction are placed together in the vertical sign stack.
<b>A51-4</b> Cycle Route Intersection Direction arrow – local route	Mount in a highly visible location so that they can be clearly read by cyclists at a <b>minimum of 15 m</b> from the intersection.	Site clear of turning traffic and in full visibility of the route to minimise confusion at path junctions, particularly where there are multiple junctions or other road signs and names.

<b>Sign</b>	<b>Location</b>	<b>Notes</b>
<b>A51-5</b> Cycle Route Direction sign	Direction indication signs are located at intersections or route turnings either immediately before or after the intersection, whichever offers the most visible and legible siting for the sign.	On a downhill approach, signs may need to be located on the approach side of the intersection to provide adequate warning of a turning. The optimal siting for a cycle route direction sign may be on the far side of large or complicated intersections to draw the eye of the user through the intersection along the street or road to be followed
<b>A51-6</b> Cycle Route Markers	Route markers can be located at intersections and point to the route travel direction along a street or path. Markers are sited in full visibility of cyclists using the route.	They can be provided on their own sign post or mounted on power poles, street light poles, existing sign posts.
<b>A51-7</b> Cycle Route Location plate	Location plate signs are located above the cycleway on both approaches to underpasses and bridges to clearly identify the street or road being crossed at different grade/level to the cycleway.	The optimal siting for a location plate sign is on the face of a bridge/overpass structure, easily seen from, and directly above the cycleway/path. Signs are permanently affixed to the bridge/overpass structure. The method of fixing takes into account the type, age and materials used in the structure.
<b>A51-8</b> Cycle Route Confirmation Direction sign	<b>50 – 100 m</b> following cycle route junctions with other primary or local routes.	They are not appropriate for use near junctions with local routes as these are signed with both cycle network and local destination fingerboards.
<b>A51-9</b> Cycle route network map	Located at network junctions and particularly at 'gateway' locations (bridges, Central City periphery etc) that provide access to a large section of the cycle network.	Refer to section 2.1.7 for more details