Cycling Destination Wayfinding Guidelines

March 2016

Making a difference...together

These guidelines have been produced to assist municipalities and electoral areas in the Capital Region to prepare on-road destination wayfinding signage plans for cyclists.

The guidance contained here is intended as a *supplement* to existing provincial and national guidance. The guidance is not intended to cover other warning, regulatory or road user information.

Adapted from original guidance produced for and under the permission of TransLink. Original and adapted document prepared by Applied and Alta Planning+Design, 2014

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1.0 Introduction

Explaining the purpose, benefits and background to the bicycle wayfinding guidelines

1.1 Context

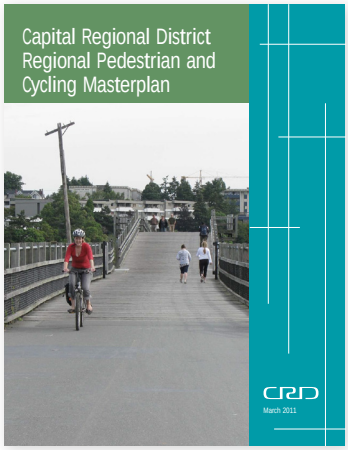
Pedestrian & Cycling Master Plan (PCMP)

These guidelines form one of the actions described in the Capital Regional District (CRD) Pedestrian & Cycling Master Plan (PCMP), published in March 2011. The PCMP sets an ambitious goal of achieving a 15% regional modal split for cycling (25% in urban areas) and 15% regional modal split for walking by 2038 through strategic investments in infrastructure, as well as education, encouragement, evaluation and enforcement activities. The PCMP also identified the concept of the Primary Inter-Community Network – bicycle networks *within and between* communities which have regional significance for commuter and recreational travel.

One of the components of a comfortable bike network is provision of good quality signage to guide both new and existing cyclists to their destinations. Strategy 3.2 of the PCMP describes a desire to establish a *common regional wayfinding system* for cyclists which supports consistency, continuity and connectivity between communities.

These guidelines were developed in 2014 as a part of the two year PCMP Implementation Pilot Project. An associated installation program was also made available and seven communities received grants in 2015 to plan and install wayfinding signs. The CRD continues to monitor feedback on the efficacy of these signs received from municipal staff as well as both new and existing cyclists.

The CRD Pedestrian and Cycling Master Plan sees a common wayfinding system as a key strategy in improving regional walkability and bikeability.



Relationship to existing guidance

These guidelines are intended to provide planning and design advice for bicycle wayfinding across the Capital Regional District. Other types of signage, including warning and regulatory signs, are covered by the Transportation Association of Canada (TAC) and BC Ministry of Transportation and Infrastructure (BC MoTI).

The current edition of the TAC Bikeway Traffic Control Guidelines for Canada provides specific guidance on signage and markings for bicycle facilities. Similar guidelines from the BC MoTI are forthcoming. Material specifications, including reflectivity are covered by the BC Manual of Standard Traffic Signs & Pavement Markings. This document supplements these national and provincial guidelines providing additional advice, details and solutions to circumstances common to the Capital Regional District.

In addition to Canadian references, there is a range of compatible advice available from the United States. While practitioners must be careful not to contradict applicable Canadian guidelines the following may be of interest:

- **US National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide**
- **American Association of State Highway and Transportation Officials (AASHTO) Guide for the Development of Bicycle Facilities**

The Current Wayfinding Landscape:

There are a number of examples of different bicycle wayfinding in the capital region. The current approach includes route arrows, non-standard information signs, map kiosks and some destination-based directions – mostly centered on trails and promoted bike routes. Elsewhere lane markings and regulatory signage are more prevalent.

These Guidelines are intended to provide consistency for on-road destination wayfinding. The guidelines are not mandatory. The guidelines do not suggest that all existing signs be replaced. They are also not intended to be used on provincial highways.

Municipalities who have their own wayfinding signage are not expected to immediately replace them with new signage throughout their communities. These guidelines are intended to serve as a *memorandum for reference* to allow communities to introduce signage slowly, over time, on an as-needed basis, or as funding becomes available. The templates provided in this document allow for municipal customization while maintaining a standard look and feel. Ultimately the guidelines provide a chance to increase legibility for cyclists navigating to key destinations within and between communities.

How these guidelines were developed

The guidelines were prepared by Applied and Alta Planning + Design for the CRD in consultation with municipal representatives throughout the region. Municipal staff from planning, engineering and sustainability departments contributed comments, questions and recommendations at various stages in development. Additional community stakeholders including representatives from the Greater Victoria Cycling Coalition, Greater Victoria Bike to Work Society, Kidical Mass, and the University Of Victoria Planning & Sustainability Office also contributed to the project.

The Cycling Destination Wayfinding Guidelines will be formally reviewed and updated in 2018 as a part of the Pedestrian & Cycling Master Plan Review Process. This process will re-engage transportation agencies, municipal staff, and community stakeholders to assess the guidelines and ensure that the document is effective and compatible with current guidance produced by other bodies. A comprehensive review will also provide an opportunity for any new considerations and will ensure that the guidelines remain relevant and appropriate for the needs of municipalities.

Related PCMP objectives

Objective 3

Promote regional consistency, continuity and connectivity

Strategy 3.1: Develop common standards for pedestrian and cycling design guidelines

Strategy 3.2: Develop a common wayfinding signage system

What are the benefits of wayfinding?

Wayfinding is a decision-making process related to navigation. The decisions we make are influenced by what we sense, our experience and the information we can obtain. Signage, maps and mobile devices, are commonly recognized means of assessing wayfinding information.

Much of the region's hundreds of kilometres of active travel facilities are on residential streets, separated paths or special routes that a driver or transit user might be unaware of. This network can provide safe, comfortable and convenient access across the region but only if pedestrians and cyclists can find their way to it and through it. In recognition that both municipalities and the CRD want to encourage more residents to walk and cycle more often as well as attract cycle-tourists from outside the region, destination wayfinding is an increasingly important component of the streetscape.

A common wayfinding system can help users by identifying the active travel network, pointing out route options and helping them learn what other destinations could be accessed.

Wayfinding at work in New Westminster, BC

1.2 Scope

Identifying the user

These guidelines are focused on helping achieve local and regional goals to increase the number of people who cycle for commuting, recreation and utility trips. The guidelines accommodate this focus by prioritizing directions to places that residents and visitors may visit for a wide variety of purposes, which are a moderate distance apart and can be accessed from the designated bike network.

With an increasing number of visitors coming to the capital region for cycle-tourism activities it is also recognized that destination wayfinding signage provides an important consistency between communities.

Wayfinding for walking

Walkers and cyclists have different use patterns with respect to wayfinding. A cyclist can travel much further and faster than a walker for the same effort. This produces large differences in how far away a destination might be reasonably signed from. Walkers are also more willing to stop and study information, whereas maps, detailed directions and smaller text are difficult to use while cycling.

As with driving, a bicycle wayfinding system must consider safe use and refrain from including too much text on any one sign. For these reasons the guidelines do not attempt to combine cycling and walking wayfinding in a single approach. However, the presence of cyclist-focused wayfinding on shared routes will undoubtedly provide benefits to other users. These could be supplemented for walking by adding map kiosks and/or specific directions to local destinations within short distances.

Inter-municipal regional-scale trips are more likely to be completed by bicycle than by foot because of the distances involved; therefore, it is of higher priority at this time to ensure that cyclists encounter information in a standardized way across the region.

Types of cyclist

Utility cycling
Some people use the network to get to work or other specific purposes. They need consistent, reliable information for their whole journey.

Recreational cycling
Some people use the network for fun, sport or exercise and with no specific destination. They may look for contextual information and directions to services.

Cycle tourism
An increasing number of people travel by bike for vacations. They will have a route plan, but may look for places to explore while on their journey.

Principle 6 Help Users Learn
Help new or returning cyclists learn how to navigate the designated cycling network for regular or new journeys.
(See page 11 for principles.)

Prioritizing routes for wayfinding signage

While it is possible to cycle on most streets, a network of designated cycling routes has evolved *within* and *between* each community. It is this series of bicycle networks across the CRD which are the primary focus of the wayfinding guidelines.

The existing network is large and varies considerably in terms of its facilities, traffic use and suitability for different levels of cycling experience. The Primary Inter-Community Cycling Network (PIC) identified in the PCMP is envisioned to connect all communities and provide a seamless transportation corridor to designated regional centres. At a municipal level, there are local cycle routes which provide critical links between neighbourhoods and to important community destinations. Providing wayfinding on these routes will likely be a priority for municipal agencies. Finally, there are also some less heavily-used routes that connect neighbourhoods, schools, parks and places of work. These routes will have varying degrees of importance in local transportation plans and may also be suitable for wayfinding signs.

Details on the destination hierarchy can be found in section 1.4.

Other types of information

Wayfinding is just one type of information that may be directed at cyclists. Municipalities may also wish to provide interpretive signage, promote municipal identity, recognize corporate sponsors, or identify volunteer groups who maintain bikeways. These and other types of non-wayfinding information should be provided separately so that wayfinding guidance is always easy to identify and understand.

1.3 Principles

These guidelines will be formulated around a set of core design principles. These principles are included to describe the basis for achieving a fundamentally consistent approach.

1 Connect places

The PCMP aims to encourage new cyclists to undertake everyday journeys by bike. Wayfinding information should help people ride between destinations and develop an increased sense of how cycling can provide mobility.

The relationship between the bicycle network and the principle of connecting places also helps inform future planning priorities.

2 Use consistent destination names

The consistent use of an agreed list of names and references allows for users to confidently use wayfinding signage to reach destinations and follow routes across different jurisdictions.

A consistent set of references also helps users trust and learn the system and so apply their knowledge to new journeys.

3 Maintain movement

Cycling is a physical activity and repeated stopping and starting is both tiring and frustrating. Wayfinding information that cannot be read quickly by cyclists at desired travel speeds make bicycle journeys less attractive.

Continuous, visible and clear wayfinding will help identify routes and enable cyclists to maintain an even pace.

4 Be predictable

When information is predictable it can be quickly recognized, understood and used. Predictability can relate to all aspects of wayfinding information, from the placement of a sign to the design of its contents.

Predictability also means that understanding can be recalled for use in new situations. Once riders trust that they will encounter consistent and predictable information, new journeys can be made more easily.

5 Disclose information progressively

It is important to provide information in manageable amounts when wayfinding. Too much information can be difficult to understand; too little and decision-making becomes impossible.

Wayfinding for cycling is similar to guide signing for drivers, in that their travel speeds are similar, particularly in urban settings. As a result of the functional needs of cyclists and for their safety, signs should be simple, legible at speed and clear, in the same general way as for driver signage. Information should be provided to users who are moving in advance of where major changes in direction are required, repeated as necessary and confirmed when the maneuver is complete. The location of signage for cyclists should neither impair the accessibility or safety of other modes. Clear, legible signage for cyclists is less of a distraction to drivers than small signage that drivers may slow or even stop to try to use.

6 Help users learn

For many in the target market for cycling, the process of travelling by bike will be new or largely forgotten. Wayfinding information should take this into consideration and seek to help newcomers to cycling understand what is accessible and how to navigate the network and any challenging situations.

Wayfinding information provided for bike facilities should also complement other information and resources, such as the CRD Bike Map, so that learning is easier and quicker.

7 Keep information simple

Information should be structured and presented to the rider in as clear and logical a form as possible. During a journey, a cyclist may have to make decisions quickly for safe movement. Too much information requires extra time to understand and use.

Badly designed, structured or located information forces users to spend more time wayfinding. The longer someone has to try to understand information, the less likely it will be used.

Principle 1 Connect Places
Encourage new cyclists to undertake journeys by bike instead of less sustainable modes.
(See page 11 for principles.)

1.4 Destinations

Destination hierarchy

Following from the first principle, "Connect Places", the major focus of these guidelines is how to direct cyclists along the designated cycling network to the places they want to go. In order to do this, a set of destinations and their names must be agreed regionally. It is a fundamental user-expectation that wayfinding will refer to destinations consistently and predictably until they are reached.

A hierarchy of destinations is necessary in order to prioritize which destinations to include when there are too many possible destinations than can fit legibly on a sign. In preparing these guidelines, municipalities have agreed to the following hierarchy.

Level 1 – Regional Centres
These are the major centres of activity identified as Complete Hubs, Gateway Hubs and Rural Hubs in the Regional Transportation Plan. The Regional Centres are the main centres within individual municipalities offering a full range of attractions and services, and provide the primary geographic orientation points for regional cycling.

Level 1 destinations are included on signs up to 8 kilometres away, a distance which encompasses roughly 90 percent of all bicycle trips (TransLink Regional Trip Diary Survey, 2004). The map on the following page shows the suggested Level 1 destinations and an 8 kilometre scale bar for reference.

In some cases the distance between Level 1 Regional Centres is greater than 8 km. In such cases it is appropriate to sign from one Level 1 destination to another that is more than 8 km away so that users can orient themselves.

Level 2 – Neighbourhoods
These represent centres of community with sub-regional importance. Neighbourhoods provide a mixture of services used by local people and should be determined in alignment with local Official Community Plans. The three largest post-secondary institutions - University of Victoria, Camosun College and Royal Roads University - can be considered neighbourhoods in their own right, and are included in Level 2.

Level 2 destinations are included on signs up to 4 kilometres away.

Level 3 – Major Attractions
These trip attractors include transit stations and exchanges, major tourist venues, trails, regional parks and border crossings.

The intention is that local municipalities will decide what qualifies in the Level 3 and Level 4 classes as these will generally influence trips within one jurisdiction. Where there is a chance of inter-municipal travel on routes we recommend liaison between municipalities.

Level 3 destinations are included on signs up to 2 kilometres away.

Level 4 – Local Destinations
A municipality may wish to increase wayfinding to include local destinations. This may be useful to reflect the nature of lower density areas or to integrate bicycle wayfinding with walking wayfinding on shared paths. They may also be useful if a municipality wishes to provide wayfinding signage on a route that does not connect Level 1–3 destinations (which should take priority on wayfinding signage).

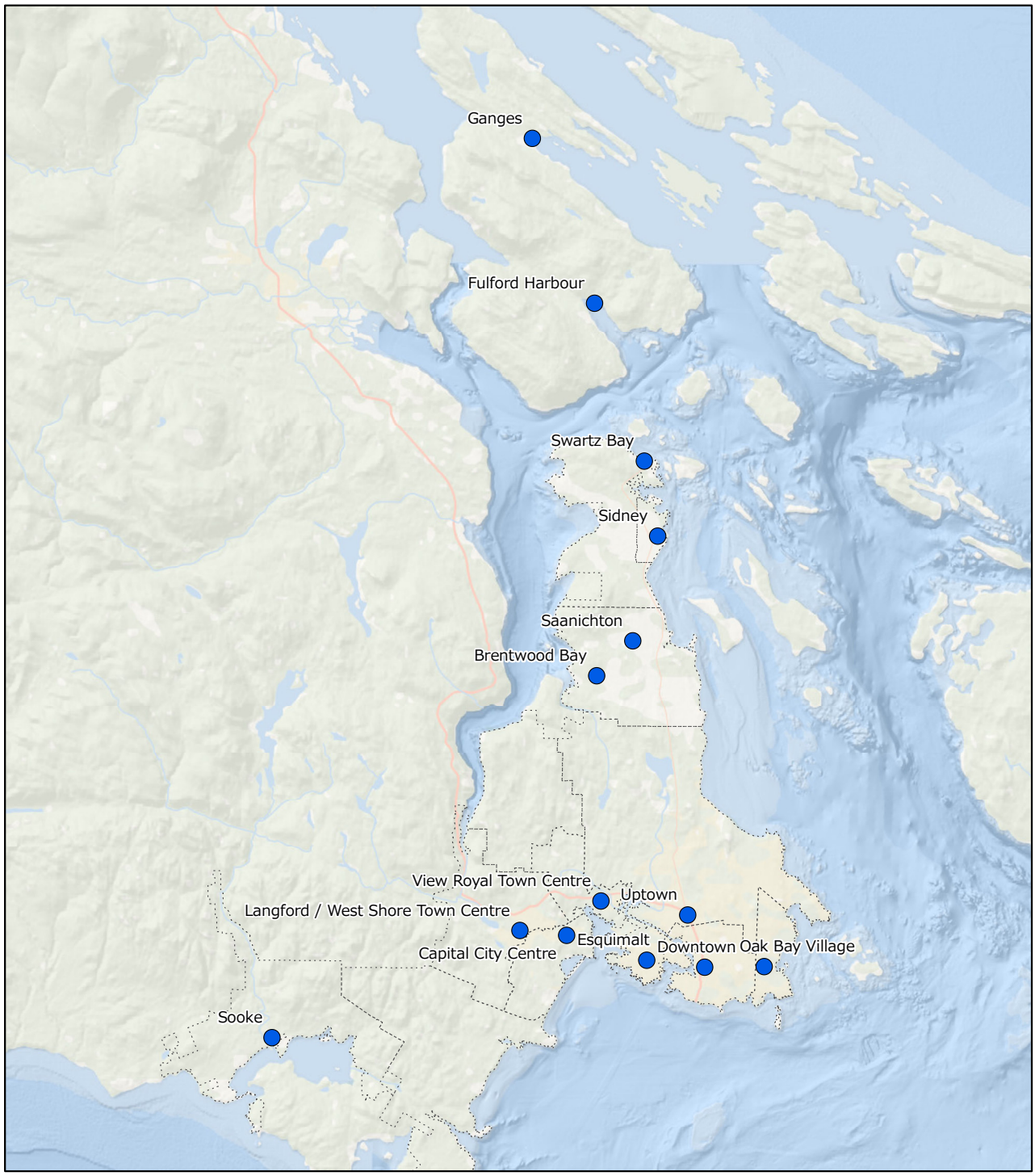
It is not practical to list all the possible local destinations across the region, but the following represents some classifications that may be useful:

- **Recreational cycle paths**
- **Shopping centres**
- **Business parks**
- **Parks, open spaces and sports facilities**
- **Elementary and secondary schools**
- **Landmarks**
- **Healthcare facilities**
- **Public washrooms**
- **Bicycle repair shops**
- **Civic facilities – community centres, libraries**

While there is value in increased information it is important to consider the principle of keeping information simple. Overloading signs with information while well-intentioned can easily have the effect of making them harder to understand and therefore less useful.

Level 4 destinations are included on signs up to 2 kilometres away.

Principle 2 Use Consistent Destination Names
Use common terminology to allow cyclists to follow wayfinding signage across different jurisdictions.
(See page 11 for principles.)



Map 1. Regional Destinations

Capital Regional District
Cycling Destination Wayfinding Guidelines


Destination I
Destination II
Destination III


Destination IV 0.5
Destination V 1
Destination I 8


Destination I
Destination II


To
ROUTE

2.0 Regional Wayfinding System

Signs form the basis of the wayfinding system. This section describes the sign family and how to reduce excessive signage.

Principle 5 Disclose information progressively
Progressive disclosure spreads information along journeys in a logical way to avoid overloading signs and confusing users. (See page 11 for principles.)

2.1 Sign family

2.1.1 What signs are needed?

Sign types

There are five types of wayfinding signs, available to municipalities.

Two different combinations of sign types are typically used dependent on the nature of intersection they are signing and community context. Configuration examples are detailed on the next page.

Sign placement

All signs shown are intended to be mounted within the cyclists' field of view. The typical vertical operating envelope for an adult bicycle rider is 2 metres; sign information should be displayed no less than 1 metre from ground level but should rarely be posted higher than 2 metres.

D Decision sign

On the approach to a decision point, decision signs point the direction to control destinations.

T Turn fingerboard

Fingerboard signs should be placed after the decision sign, at the point of the turn.

C Confirmation sign

After a turn, confirmation signs reassure cyclists of their direction and confirm additional destinations reached along that route.

W Off-network Waymarker

Off-network waymarkers indicate short links to designated bike routes.

U Utility Confirmation sign

Utility Confirmation signs reassure cyclists they are on a designated route.

Additional signage to be considered

Street name signs
The installation of street name signs at every bike route intersection, including where off-street trails join or cross public roads, is an important measure to reassure cyclists that they are making the correct route choice.

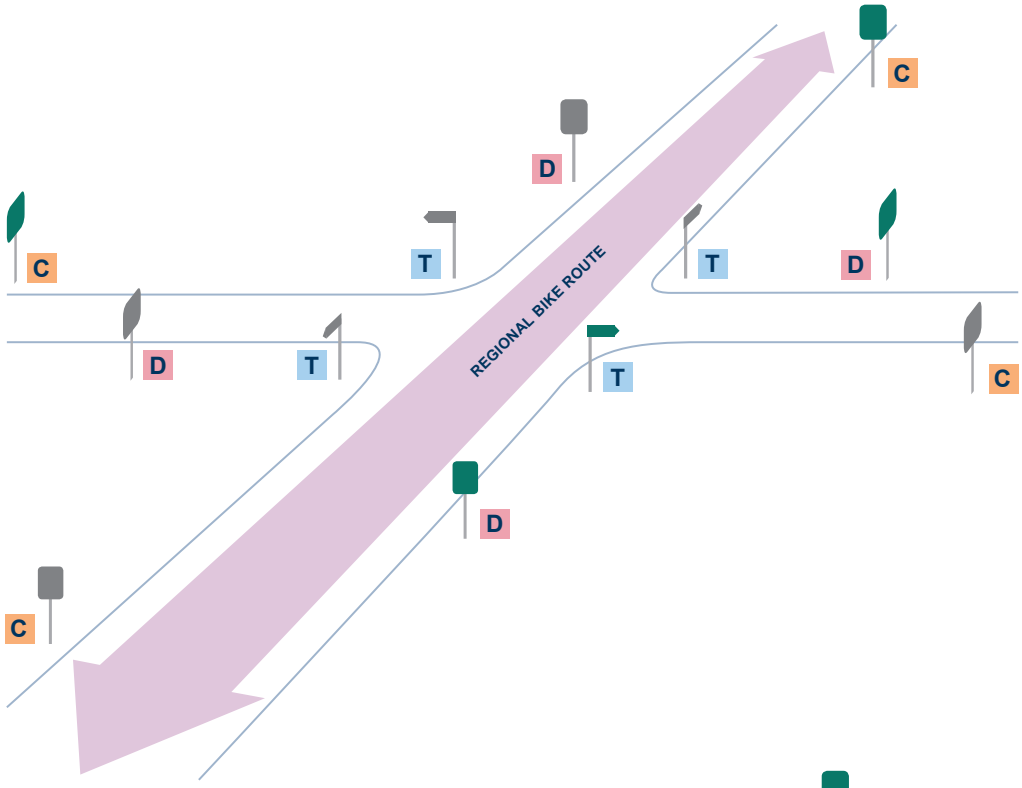
Other common bicycle signage
Please refer to the BCMoT and particularly to the Specifications for Standard Highway Sign Materials, Fabrication and Supply for other common bicycle signage.

www.th.gov.bc.ca/publications/eng_publications/signs/2010_Catalogue/Standard_Traffic_Signs/Bicycle_Signs.pdf

3 Part system

On connections to and from regional routes

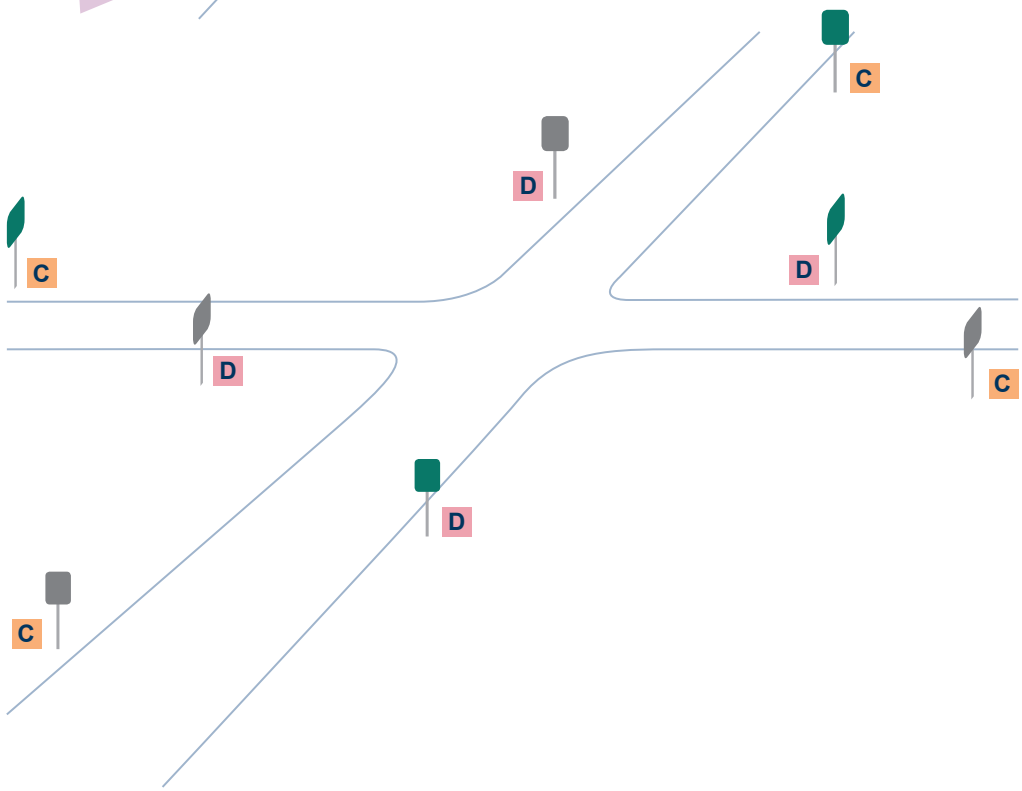
This is the typical configuration of signs at an intersection on connections to or from regional routes. Each direction has a decision sign on the approach, a turn fingerboard at the turn and a confirmation sign on the exit.



2 Part system

On all other routes

This is the typical configuration of signs at an intersection where none of the routes are connections to or from regional routes. Each direction has a decision sign on the approach and a confirmation sign on the exit.



Principle 5 Disclose information progressively
Progressive disclosure spreads information along journeys in a logical way to avoid overloading signs and confusing users. (See page 11 for principles.)

2.2 Decision Sign

D

Decision signs provide directions to selected destinations.

They are located in advance of intersections to provide cyclists the time to slow and manoeuvre if necessary.

Placement

Decision signs should be located at a safe stopping distance before the turn. Transportation Association of Canada (TAC) guidance on stopping distances cannot be reproduced here in full, but is available in the TAC Geometric Design Guide (1999), Chapter 3.4, Table 3.4.5.1 (page 3.4.5.2).

It is also important that decision signs are located so that the turn it refers to is obvious. Care should be taken not to locate signs close to lanes, paths and other accesses that could be confused with the designated bike route.

On routes where speed is likely to be high, decision signs can be repeated ahead of the turn. Repeated decision signs should be spaced according to the design speed.

Format

To manage the information load, in normal circumstances decision signs will contain up to three destinations. Long names may extend over two, or exceptionally three lines, and where alternative routes exists, the addition of subtext lines may be used.

Decision signs may also be designed as diagrammatic (map type) signs. These can be useful by illustrating circuitous routes or special features, such as crossings, without the need for complex text or multiple signs. Two possible examples are shown over the page.

Content

Sign content is determined according to a system of progressive disclosure described in section 4.1.

Each direction on the Decision Sign should show a single control destination, which is the next Level 1 Regional Destination in that direction. If there is no Level 1 destination in that direction, then the highest ranking destination within its signing distance, or the route terminus, is shown.

Where there is a choice of route to reach a destination or a significant constraint on route choice such as a bridge, a subtext line indicating the ‘via’ route may be used.

To identify their function as bicycle wayfinding signage, the top portion of decision signs should include a bicycle symbol and the route name, if any. Destination content only appears on the lower portion of the signs.

Principle 7 Keep information simple
A cyclist may have to make decisions quickly for safe movement. Signs with too much information may be missed or ignored. (See page 11 for principles.)

2.2.1 Decision Sign Examples

See page 53 for design specifications and further variations

This section shows typical layouts and common variations to accommodate additional information. Section 4.4.1 Decision Signs provides specifications for these and other variations.

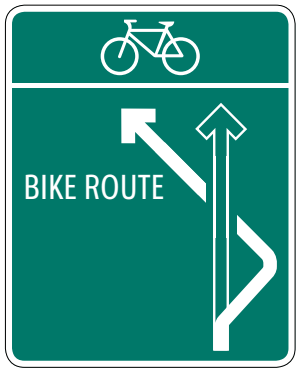
Text types

D1 Typical sign

D1.1 Including bikeway on route of travel
When a route is named, this name can be shown in the header section of the sign.

D1.2 Including descriptive subtext
The addition of a subtext indicating route characteristics such as via '(route name)', 'via (name) bridge', 'via scenic route' or 'via quiet route' can help cyclists make decisions about the journey ahead.

Map types



Map type signs should be considered unique to the circumstances they depict. The signs shown are illustrative of possible approaches.

Wayfinding signage is just one type of information that may be directed at cyclists. Municipalities may also wish to provide pavement markings, bike symbols on street name signs (for designated bicycle streets), interpretive signage, promote municipal identity, recognize corporate sponsors, or identify volunteer groups who maintain bikeways.

2.3 Confirmation Sign

C

Confirmation signs are used to reassure cyclists that they are on the correct course for their destination. They also provide information about other destinations that may be reached on the route.

Placement

Confirmation signs should be located at 20–30 m after turns. This proximity reinforces the correct exit route. This is especially relevant where a single bike route travels through a complex intersection.

Confirmation signs may also be used alternately with standard BC MoTI or TAC Bike Route signs to reassure cyclists on long sections of route. A suggested frequency for reassurance signs is every 400 m in urban areas and every 800 m in rural areas. Frequency should be increased where there are changes in route direction or where there are side routes that could be confusing.

A further way to reassure route choice is to ensure that street name signs are installed at every bike route intersection, including where off-street trails cross or join public roads.

Format

Confirmation signs are located after turns where information load is less distracting. For this reason it is possible to include destination names and distances. Normally three, and up to four, destinations would be shown in ascending order of distance. Where necessary, subtext lines may be included under destinations, though they should be limited to avoid overloading cyclists with information.

Content

Confirmation signs should always include the next Level 1 Regional Centre or the terminus of the route whichever would be reached first. Other destinations should be included according to rank and relative proximity.

Confirmation signs should always include distances to the nearest whole kilometre. When the distance is below 2 km, fractions of 0.1 km can also be used.

Further guidance on sign content design is described in section 4.4.

2.3.1 Confirmation Sign Examples

See page 60 for design specifications and further variations

This section shows typical layouts and common variations to accommodate additional information. Section 4.4.2 Confirmation Signs provides specifications for these and other variations.

Text type

C1 Typical sign

C1.1 Including bikeway name header

When a route is named, this name can be shown in the header section of the sign.

C1.2 Including descriptive subtext

The addition of a subtext indicating route characteristics such as via '(route name)', 'via (name) bridge', 'via scenic route' or 'via quiet route' can help cyclists make decisions about the journey ahead.

2.4 Turn Fingerboard

T

Turn fingerboards are used to highlight turns from one cycle route to another. The fingerboard is material and space efficient, while its shape has the advantage of being inherently directional.

Placement

Turn fingerboards should be located as close as possible to the turning point. Normally turn fingerboards are located on the approach side of the turn but may be located on the opposite side where this makes directional or positional sense. Further guidance on siting signs is given in section 4.3.2.

Format

Turn fingerboards are located at the point where a cyclist may need to concentrate and so should be as simple as possible. Normally only one destination is included, but in quieter areas two destinations may be used.

Content

Turn fingerboards should show next Level 1 Regional Centre (or if none, then the highest ranking destination in that direction), or the terminus of the route whichever is closest.

Where a second destination is included, it should represent the next highest ranking destination and, if more than one, the closest.

2.4.1 Turn Fingerboard Examples

See page 64 for design specifications and further variations

This section shows typical layouts and common variations to accommodate additional information. Section 4.4.3 Turn Fingerboards provides specifications for these and other variations.

T1 Typical sign

T1.2 Including descriptive subtext
The addition of a subtext indicating route characteristics such as via '(route name)', 'via (name) bridge', 'via scenic route' or 'via quiet route' can help cyclists make decisions about the journey ahead.

Standard TAC signage to bicycle parking areas

Standard TAC signage can be used to provide turn information from designated bikeways to bicycle parking areas that are out of sight.

Principle 6 Help Users Learn
Help new or returning cyclists learn how to navigate the designated cycling network for regular or new journeys.
(See page 11 for principles.)

2.5 Off-network Waymarker

W

Off-network waymarkers are optional signs with the specific purpose of indicating short links to designated bike routes from other streets or paths.

Placement

Off-network waymarkers should be located as close as possible to the point that marks the change in direction towards a designated bikeway, to reassure where there are jogs in links to designated bikeways. Off-network waymarkers may also be used to provide reassurance on links to the bike network. However, typically such links will be short and direct with few decision-points and so should not require reassurance.

As the signs are small, it may be appropriate to locate them at eye height on walls, on low posts or in combination with other street signs to reduce clutter, provided they remain clear and logical in the context of the link direction.

Further guidance on siting signs is given in section 4.3.2.

Format

These signs are small fingerboards and the content is purposefully as simple as possible to act as a 'breadcrumb trail' to the designated bikeway.

Content

Off-network waymarkers do not contain destination information but may include a route name or brand logo. It is critical that all Off-network waymarkers include the word 'To' to confirm that they are not signing the route of a designated bikeway but access to it.

2.5.1 Off-network Waymarker Examples

See page 72 for design specifications

W1 Typical sign
Used on non-designated cycle route to direct cyclists to a designated route.

Waymarkers direct either ahead, left or right.

The 'straight ahead' version can be used as a repeated sign to instruct cyclists to continue in the direction they are going.

Principle 6 Help Users Learn
Help new or returning cyclists learn how to navigate the designated cycling network for regular or new journeys.
(See page 11 for principles.)

2.6 Utility Confirmation Sign

U

Utility Confirmation signs are optional signs with the specific purpose of reassuring cyclists they are on a designated bike route.

They may be used in place of Confirmation signs on longer routes in more suburban and rural areas where it is felt a smaller sign is more appropriate.

Placement

Utility Confirmation Signs are typically located for reassurance along a straight route, with a suggested frequency of every 400 m in urban areas and every 800–1,000m in rural areas.

On occassion it may be helpful to use this type of sign to reinforce changes in direction of the bikeway. These situations will tend to be minor turns in the route and will not be of the size or importance to necessitate the use of a Turn Fingerboard sign. On these occassions the Utility Confirmation sign can be joined by a separate arrow sign. The sign should be located as close as possible to the turn.

Format

These signs are intended as small reassurance signs and in most situations will show a bicycle icon only.

Content

The bicycle icon may be combined with a route name when located on a designated named bikeway.

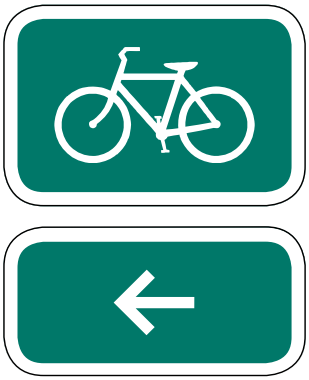
Where the indication of direction is necessary the bicycle icon may be combined with a separate arrow sign.

2.6.1 Utility Confirmation Sign Examples

See page 74 for design specifications

U1 Typical sign

U1.1 Including bikeway name
When a route is named, this name can be shown under the bicycle icon.



U1.2 Including direction
Where it is necessary to indicate a change in direction of travel, a separate arrow sign can be added.

3.0 Implementation

This section provides practical guidance for municipalities to consider when signing routes. Steps are given to help guide the planning and implementation of wayfinding schemes, as well as post installation considerations such as the evaluation and maintainance of routes.

Practical steps towards creating an effective cycling wayfinding system

The creation of an effective cycling wayfinding scheme involves three broad phases: planning, implementation and post-implementation.

During the planning phase a fully surveyed and assessed route network will be created with the consultation of local stakeholders.

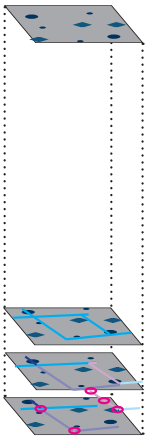
The implementation phase includes the physical upgrade and improvement of this network, alongside the creation of a sign schedule that will inform the work of the selected fabricator.

Once the wayfinding system has been implemented, as part of the post-implementation phase it should be subject to ongoing monitoring, upgrades, and maintenance to respond to changes in the community.

These three phases are broken down into practical steps on the following pages.

3.1 Planning Wayfinding

1 Define Focal Point Map



2 Clarify the Route

3 Complete Field Survey and Assessment

4 Consult Local Stakeholders

1. Identify a hierarchy of destinations and develop them on a focal point map. A focal point map locates the hierarchy of destinations (section 1.4) on a map with the bicycle network. Consider destinations in adjacent jurisdictions where needed to achieve continuity and consistency.

2. Overlay existing and planned bicycle networks with the destinations from the destination hierarchy list. Define the network to be signed, divide the routes into segments, define the route segments, and identify the decision points (section 4.1). Refer to regional and local cycle network maps to identify the route within the region, intersecting routes, and key decision points, and destinations that will appear on signs. Produce a placement plan that identifies destinations. Consider routes in adjacent jurisdictions where needed to achieve continuity and consistency.

3. Complete a field survey to document route conditions, identify physical deficiencies, and formulate remedial actions. Field assessments of cycling routes aim to identify roads hazards that might pose challenges for anticipated users. A facility assessment should identify any potential upgrades or improvements for routes to meet desired facility designs identified in local network plans or the PCMP PIC. Consider: safety concerns, locations which are most challenging to navigate, those associated with the destinations selected, sign placement or route selection (e.g. routes connecting destinations or high volume routes).

4. Consult local stakeholders to provide input into the agreed destinations, the designated routes to serve each destination, and route upgrades required. Stakeholders can contribute to continued development and implementation of the wayfinding system across the bicycle network. Establish a regular process for gathering feedback on the wayfinding system.

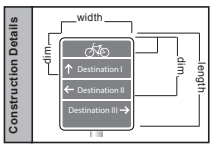
3.2 Implementing Wayfinding

1 Upgrade and Make Improvements

2 Design Signs

3 Final Sign Schedule

4 Develop Tender or Construction Drawings



5 Inspect

1. Undertake upgrades or improvements. Where a route can not be upgraded, an alternate route should be selected or signage delayed until an upgrade has occurred. Consider interim signage strategies on a trial basis to allow for rapid implementation and to allow for adjustments before the route, facility designs, and signage are finalized.

2. Consistent sign design will help users easily identify routes. Follow the graphic standards and design guidelines (section 2.0 and 4.4). To achieve consistency, only those locations identified in the destination hierarchy list should appear on cycle network signage.

3. Develop a sign schedule. A sign schedule is a list of signs needed along a route, their location, and the directions to be included on signs. Consistently located signs along a route or at key decision points enables clear navigation of the network. Different levels of signing and marking may be required along a route segment depending on the local and regional route types (sections 2.0 and 4.0). Define routes for implementation to create a phasing plan.

4. Prepare tender or construction ready drawings for fabrication of signs. Installation may include electrical, foundation or structural work. It is important to maintain close monitoring at this stage of implementation. Fabricate, install, and maintain.

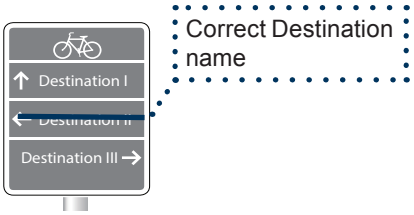
5. Complete an inspection. Assemble a team to test the signage. Conduct a field inspection once the signs or marking are installed to assess the accuracy (i.e., destination names) and effectiveness of each sign (i.e., visibility). Address outstanding issues with the fabricator prior to public use of the system. Finalize a management plan and maintenance schedule.

3.3 Post-Implementation Wayfinding

1 Monitor

2 Evaluate Key Routes

3 Update Sign Design and Destination List



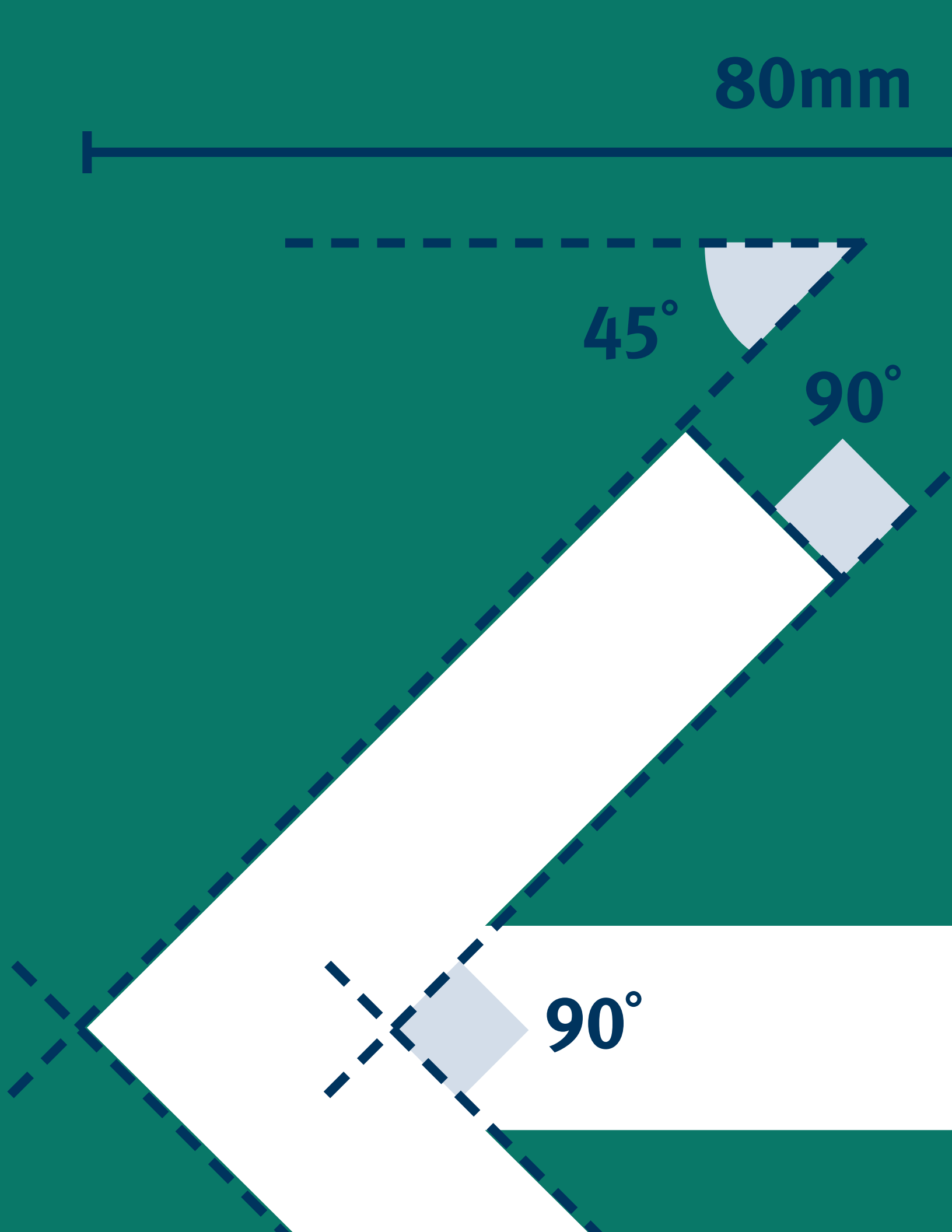
4 Maintain

1. Monitor the wayfinding system. Regulary assess and inspect the popular routes in the system to make sure the signage or markings are functioning and serving intended users. Consider: sight lines, legibility, placement and decision points, missing signs, or sign clutter. As new bicycle facilities are implemented along designaged routes, complete field assessments, routine evaluation, and install new signage.

2. Revisit the destination hierarchy list as destinations change or grow. Consider the destinations against the bicycle network so users can reach destinations. Review and update the prioritization plan or critical needs list based on priority, budget, and timeline. As needed update the sign designs.

3. Maintain the wayfinding system. Over time updates to the wayfinding system will be needed as destinations change, signs are installed, designs improve or environmental damage occurs. Monitoring and maintenance will contribute to a long lasting wayfinding program.

4. Consult local stakeholders to provide input into the agreed destinations, the designated routes to serve each destination, and route upgrades required. Stakeholders can contribute to continued development and implementation of the wayfinding system across the bicycle network. Establish a regular process for gathering feedback on the wayfinding system.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4.0 Design Guidance

This section describes how to assess, design and schedule a wayfinding project for a designated bicycle route or network. It gives examples of how to apply the design principles, how to approach atypical situations and provides specifications for the recommended signs.

Principle 1 Connect Places
Encourage new cyclists to undertake journeys by bike.
(See page 11 for principles.)

4.1 Wayfinding strategy

4.1.1 System approach

The Interim Cycling Destination Wayfinding Guidelines are intended to promote journeys between the principle destinations in the region using the local and regional designated bike network.

The cornerstone of the approach has been to agree on a list of destinations ranked according to trip attractiveness. This destination hierarchy is included in Section 1.4 and identifies destinations that should or may be signed.

Each authority that proposes to implement bicycle wayfinding should design signs using the same destinations and the design steps in order to ensure consistency.

Although it is preferable to develop a wayfinding plan for the full regional network, it is feasible to develop plans within the local context, so long as there is general agreement on higher order destinations to which to sign and on which routes to include with neighbouring municipalities.

The design steps are described in the following sections:

A Consult on local destination hierarchy

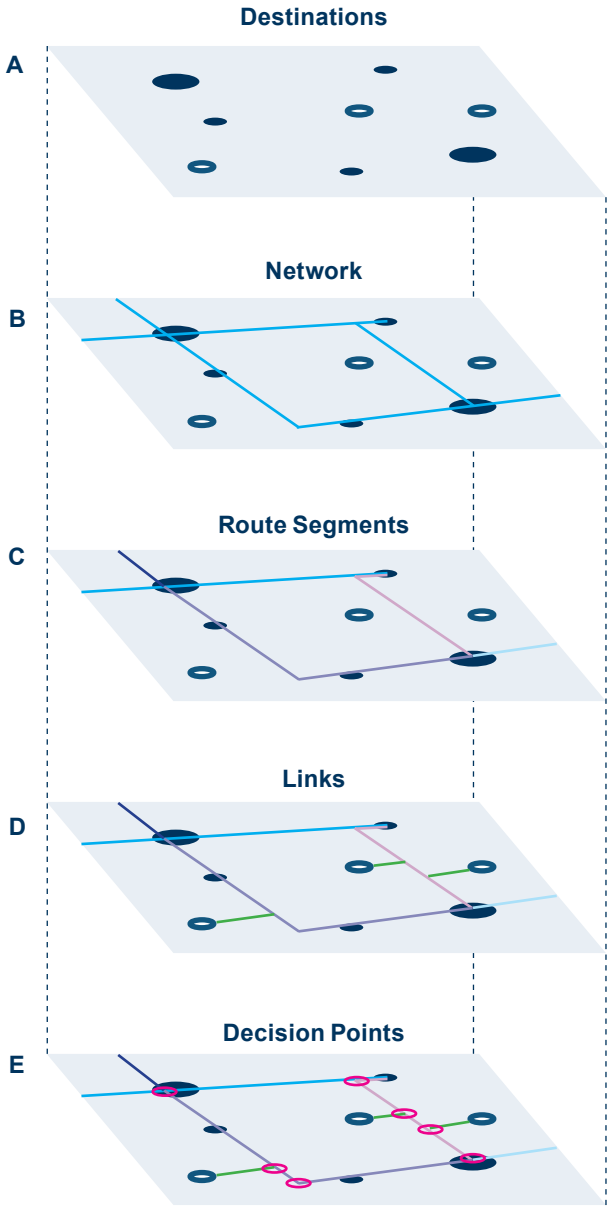
B Define a network to be signed

C Divide the routes into segments

D Define links to the route segments

E Identify the decision points

F Prepare a sign schedule



The wayfinding system is designed to connect agreed places using the bike network for utility cycling trips. To be consistent across the different areas of the region, a systematic approach is necessary.

A Local destination hierarchy

In general, regionally agreed destinations include Level 1 Regional Centres and Level 2 Local Neighbourhoods (identified through the Regional Transportation Plan) as well as Level 3 Major Attractions. However provision is also made to extend this list further to include a Level 4 class of Local Destinations (see section 1.4 for advice).

Any authority wishing to include Local Destinations in their bicycle wayfinding should consider the likely need for additional signage to accommodate the extra destinations and the related need to maintain the accuracy of the information.

B Signed network

All the destinations selected in Step A should be connected by bike routes to be included in the regional wayfinding system. Routes between Level 1 Regional Centres and Level 2 Local Neighbourhoods will be the most heavily used for utility cycling and these should be identified as the primary network to be signed.

A planning exercise, preferably as part of a bike route plan, should establish which bike routes are best suited to link all higher order destinations in Levels 1 and 2. Consideration should include who will use the signs and where they may wish to ride for utilitarian purposes. The CRD's Pedestrian and Cycling Master Plan (PCMP) includes a Bikeway Facility Classification that describes the physical route characteristics which best support utility cycling. Further consideration should be given to route connectivity beyond municipal borders and necessary municipal liaison.

This exercise will provide a network of connecting routes to be signed. It should be noted that some designated routes may be omitted if they do not connect significant trip-generating destinations while other routes may be added if they run parallel or are recreational trails that offer cyclists quieter or more scenic options.

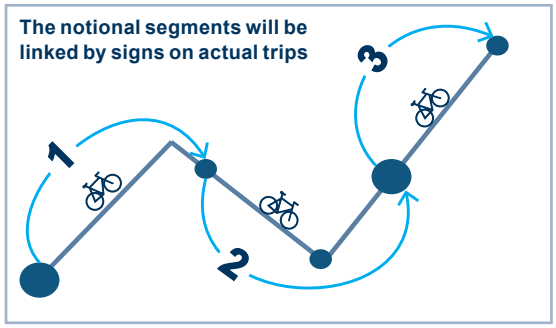
It is also conceivable that some destinations are not yet accessible from a designated bike route. In these cases the authority should decide whether to include minimal directional signage as an Off-network Link (see Step D below), or to defer signing until a suitable route has been identified and upgraded to meet desired facility standards identified in the PCMP PIC.

C Route segments

A developed cycling network may include long routes that join several intermediate destinations. Because of this, using the route's end points as control destinations may not be useful to most cyclists.

When preparing a content schedule, it is useful to consider long routes as a series of smaller segments, with a Level 1 or Level 2 control destination at each end of the segment. These segments are purely planning tools, and not explicitly named or presented to the public.

Each segment should start and end at a destination to produce a logical sequence for wayfinding signage. The wayfinding signage will join the segments into a series of steps for people on longer journeys.



Advice for defining route segments:

- **Segments should only start and end at the Level 1 and 2 destinations to ensure that wayfinding directions benefit the widest number of users.**
- **Segments should not start or end at Level 3 Major Attractions or Level 4 Local Destinations but may connect them if they are on the route.**
- **The length of each segment should ideally not exceed 8 km to match average journey distances. Where this is not practical segment lengths may be increased.**
- **In order of preference, segments should connect: Level 1 Regional Centres to other Regional Centres, Regional Centres to Level 2 Local Neighbourhoods and Level 2 Local Neighbourhoods to other Local Neighbourhoods.**
- **Where routes cross bridges, segments may end at the bridge if it is more logical that signs direct users to a municipality than a specific destination e.g. 'Esquimalt via Johnson Street Bridge'.**
- **It is acceptable for parts of different routes to share segments between destinations. E.g. the Trans-Canada Trail and Galloping Goose run along the same segments as the paths approach Downtown Victoria.**

D Links to segments

The route segments identified in the previous step link all the Level 1 and 2 destinations in the network, as well as any Level 3 and 4 destinations located along the way. There will likely also be some Level 3 and 4 destinations that are not on these segments, but still reachable via designated bike routes. Fewer cyclists are expected to use these routes, because they join destinations that are smaller trip attractors. These designated routes are Links between the Level 3 or 4 destination and the segments that join greater trip attractors.

Links may be signed in the same way as network segments. However, to optimize funding for greatest benefit, a municipality may choose to sign network Links as a secondary priority. In this case, a Turn Fingerboard can be included on the network Segment at the intersection with the Link, and the remainder of the Link identified with TAC Bike Route signs rather than full wayfinding signage.

After network Segments and Links have been identified, there may still be some Level 3 and 4 destinations that are not on the designated bicycle network. Generally, wayfinding signage should only occur on the designated bicycle network. For this reason, Off-network links should only be identified when the destination is relatively close to the designated network and reachable in a straight line. Signing from this destination back to the bike route may be signed using Off-network Waymarkers.

E Decision points

The preceding steps produce a map with all the agreed destinations connected by a network of segmented routes and links. At each intersection of two or more designated bikeways, a decision point is created where cyclists must choose which designated route to follow to their destination. At these intersections, full wayfinding signs are recommended.

Other types of decision points may merit different signing approaches. Where a designated route turns at an intersection, but there is no choice of an alternate designated route, a Utility Confirmation sign with an arrow tab an arrow tab may be sufficient. Similarly, this type of sign may be useful at smaller turns or 'jogs' in the route where the direction of the designated bicycle route is not immediately obvious.

There may also be points where a designated bicycle route intersects with the general-purpose street network in a way that is confusing to follow. At these locations, Decision Signs and Confirmation Signs, at a minimum, should be included to assist with route-following.

Principle 5 Disclose information progressively
Progressive disclosure spreads information along journeys in a logical way to avoid overloading signs and confusing users. (See page 11 for principles.)

F Sign schedule

The sign schedule is the last part of the planning process. The sign schedule is a list of all the directional signs needed along each route, their location, and the directions to be included on signs. The sign schedule should cover the whole route including all its component segments.

Preparing the sign schedule requires a consistent logic to be applied to the directions. Once included on a sign it is most important that a destination is signed continuously until it is reached. This can be challenging however as signs have a limited text capacity and there may be many possible destinations that could be included.

Progressive disclosure
Referencing the principle 'Disclose information progressively', information should be spread along the journey. This manages the demand on cyclists' attention to only what is required at that point in their journey, and also decreases the amount of information on, and size of, signs.

Signing distances suggest the maximum distance that different destinations should appear on directional signage. This simple process ensures that directions to the most important places take priority on signs.

Signing distances

Type of destination	Normal max. signing distance
Level 1 Regional Centres	8 km
Level 2 Local Neighbourhoods	4 km
Level 3 Major Attractions	2 km
Level 4 Local Destinations	2 km

Notes on signing distances:

1. Exceptions to these normal maximums may include long sections of route without qualifying destinations, where it is acceptable to indicate the next highest level destination.
2. Level 2 Local Neighbourhoods selected as segment ends may also be signed from up to 8 km away in low density areas.
3. Distances are measured either to the boundary or the heart of the destination, as appropriate. Level 1 Regional Centres are typically large areas, so distance should be measured to the nearest boundary the cyclist will reach. Level 2 Local Neighbourhoods should be measured to the heart or centroid of the neighbourhood, which is typically a more well-known reference than its boundaries. Level 3 and 4 destinations are typically specific addresses or small land parcels and should be measured directly to the destination. If a Level 3 or 4 destination is large (for example, some parks or recreational trails), distance should be measured to the point at which the cyclist would arrive at the destination given the current path of travel.
4. All distances should be measured along the traveled path from the intersection to the centroid or boundary to the nearest 0.1 km.

Connecting segments
The idea of using segments for planning is to ensure that directions generally refer to moderate distances. However some people will want to ride on longer journeys where segments form longer routes. To ensure the segments are signed continuously, where they form a route, it is important that the wayfinding signs continue through the segments ends. This is achieved using the two sign elements:

Decision signs – the highest priority destination in the straight ahead direction and within its signing distance should be shown until it is reached.

Once the cyclist is able to recognize the destination, the next successive Level 1 Regional Centre or Level 2 Local Neighbourhood may be shown as the straight-ahead direction on Decision Signs. The notes concerning exceptions to maximum distances should be applied if necessary to ensure a further destination is shown.

Once the cyclist has arrived at a control destination, the next Level 1 or 2 destination that anchors the end of the next network segment should appear on subsequent Decision Signs. The exact point at which it is appropriate to stop signing to the current straight-ahead destination and change to the next

one depends on what environmental cues are present to signal to the cyclist that they have arrived at the named destination.

Landmarks, neighbourhood name signs, store or street names, are some physical elements that can inform the cyclist that they have arrived at a destination, and hence a point where it is logical to begin using the next straight-ahead destination on Decision Signs.

Confirmation signs – Confirmation signs show the straight-ahead destinations in order with the nearest destination at the top. Intermediate destinations should be shown within the signing distance appropriate to their level.

Sometimes the number of possible intermediate destinations may exceed the number that can fit on a single Confirmation Sign. If so, priority should be given to the highest level destinations, as they are likely to be more popular destinations, and also better known, therefore making them more useful for geographic orientation.

Named routes
Route names provide a useful way to connect segments. The sign designs provide space for route names to achieve this. A number of routes across the region are already named.

Atypical decision points
In some instances, wayfinding signs alone will not be adequate to guide riders through a complex decision point. Where these locations are identified in the planning stage, they should be highlighted for site assessment.

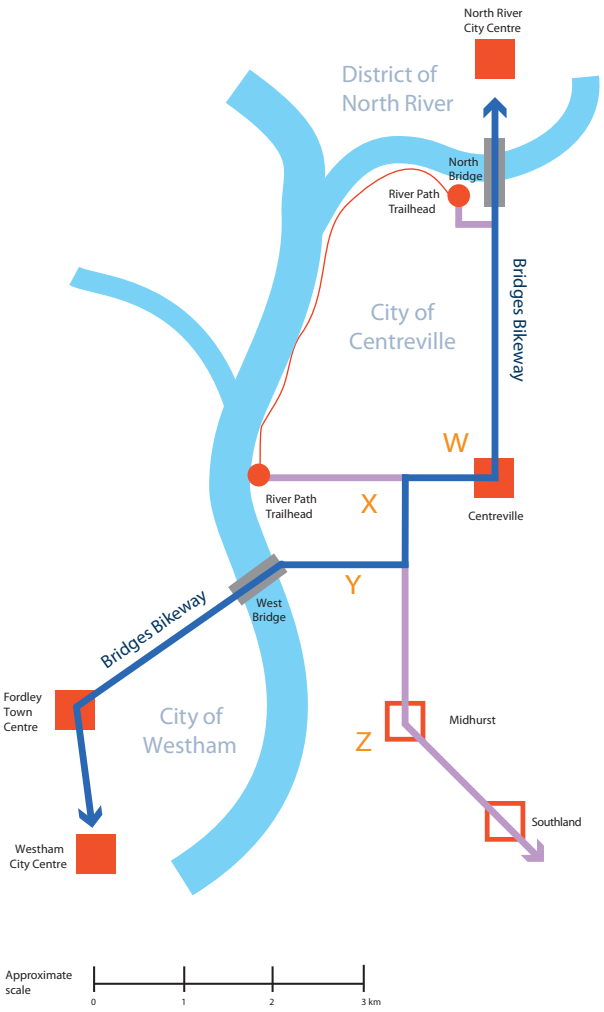
Solving physically difficult decision points may require engineering or landscaping design as well as signage.

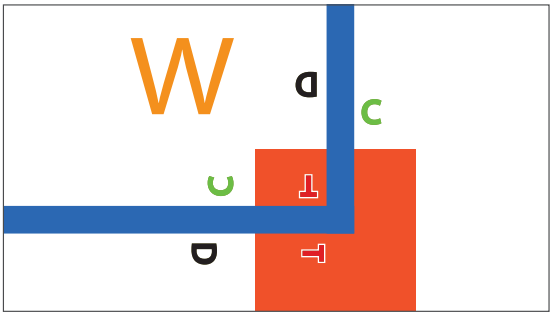
A sample sign schedule is provided on the following pages.

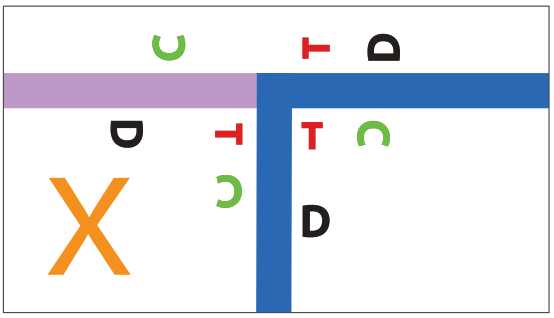
4.2 Sign planning

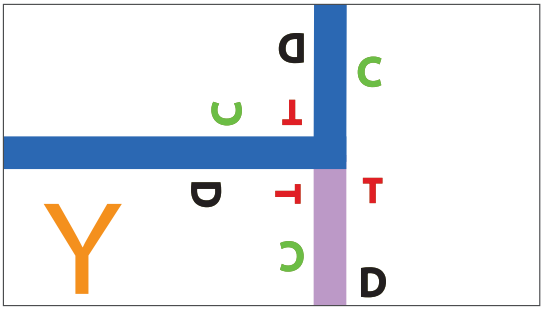
Planning exercise

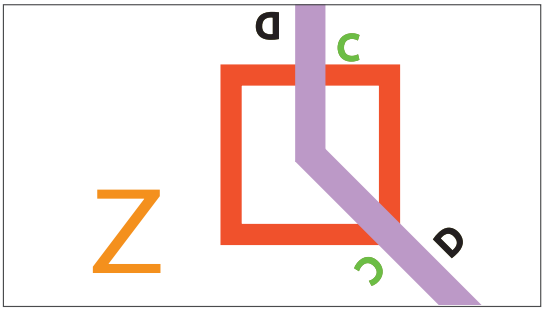
The illustration shows a theoretical cycle network connecting the fictitious City of Centreville. The graphics right show a simplified sign schedule for key decision points marked W, X, Y and Z. A more detailed sign schedule may be found on page 40.











Key

- Level 1 –Regional Centre
- Level 2 – Local Neighbourhood
- Level 3 – Major Attraction
- Bridges Bikeway route
- Unnamed designated bicycle route

Step A Consult on local destination hierarchy
The City of Centreville is planning its bicycle wayfinding. Centreville planners consult these guidelines to identify the relevant control destinations that have been agreed for the region. Centreville is a Level 1 Regional Centre while Midhurst and Southland are nearby Level 2 Local Neighbourhoods.

The River Path Trail, which runs through the City, is recognized as a Level 3 Major Attraction.

Step B Define a network to be signed
The designated cycling network connects the City of Centreville to the neighbouring District of North River and the Cities of Fordley and Westham via bridges.

The route between the bridges through Centreville is part of a long-distance regional route called the Bridges Bikeway. Unnamed designated bicycle routes connect Southland and Midhurst to Centreville via the Bridges Bikeway. The River Path Trail is also connected to Centreville via an unnamed designated bicycle route and the bridges Bikeway.

Step C Divide the routes into segments
For signage purposes the network must be divided into notional segments with anchor destinations.

Segment 1 connects Centreville to a bridge that leads to the District of North River. No Level 1 or Level 2 destinations are within the signing distance in North River so it is determined to be more logical to sign to the municipality.

Segment 2 connects Centreville to the Level 1 Regional Centre Fordley via West Bridge. Fordley is within the 8 km signing distance and will be signed.

Segment 3 connects Centreville to Southland which is a Level 2 Local Neighbourhood 6 km away. In this instance it is decided that while Southland is outside of its signing distance, the low density of the area makes it a logical segment anchor.

Step D Define links to the route segments
A designated route connects each trailhead of the River Path Trail (a Level 3 Major Attraction) to the Bridges Bikeway. These routes are identified as designated route Links.

Step E Identify the decision points
For the purposes of the example, four decision points are selected. These are:

Point W – at the intersection at Centreville. All three segments connect here giving three destination choices at this point. Segment 2 and 3 run parallel to the south and southwest, requiring a decision on the southbound direction. In this case, Fordley ranks higher than Southland.

Point X – a right angle turn on the parallel route of segment 2 and 3 and an intersection with the link to the River Path Trailhead.

Point Y – the point where segment 2 and 3 divide before continuing to their respective destinations.

Point Z – A turn in the local cycling route linking the Midhurst and Southland neighbourhoods.

Step F Prepare a sign schedule

Each line of the following schedule represents a separate sign. In addition to the directional signs, repeat confirmation signs or BC MoTI or TAC Bike Route signs may be required.

Ref	Position	Sign type	Route name (for sign headers)	Content (italics denote subtext lines)	Notes
W	Nearside southbound	Decision	Bridges Bikeway	→ Fordley	Fordley is a Level 1 Regional Centre and ranks above Southland which is the other segment end.
	Nearside southbound	Turn	N/A	→ Fordley *via West Bridge* 6.5 km	
	Nearside westbound	Confirmation	Bridges Bikeway	Midhurst 3.4 km Fordley *via West Bridge* 6.5 km	
	Farside Eastbound	Decision	Bridges Bikeway	← North River	The distance is measured to the municipal boundary. The trailhead is beyond its 2km signing distance
	Farside Eastbound	Turn	N/A	← North River *via North Bridge* 3.6 km	
	Farside northbound	Confirmation	Bridges Bikeway	North River *via North Bridge* 3.6 km	It is not logical to include the trail access at this point in the journey
X	Farside westbound	Decision	Bridges Bikeway	↑ River Path Trail ← Fordley	Midhurst could be included within the maximum 3 destinations but is only shown on confirmation signs as it not a segment end
	Farside westbound	Turn	N/A	← Fordley *via West Bridge* 5.5 km	
	Farside westbound	Confirmation	N/A	River Path Trail 1.7 km	
	Nearside southbound	Confirmation	Bridges Bikeway	Fordley *via West Bridge* 5.5 km Midhurst 2.4 km	Southland remains beyond its signing distance of 4 km
	Farside northbound	Decision	Bridges Bikeway	← River Path trail → Centreville	
	Farside northbound	Turn	N/A	← River Path trail 1.7 km → Centreville 1.0 km	
	Farside eastbound	Confirmation	Bridges Bikeway	Centreville 1.0 km North River *via North Bridge* 4.6 km	
	Nearside eastbound	Decision	N/A	↑ Centreville ← Fordley	Route from the River Path – note this may be considered as a ‘quiet route’ alternative
	Nearside eastbound	Turn	N/A	→ Fordley *via West Bridge* 5.5 km	

Y	Farside southbound	Decision	Bridges Bikeway	↑ Southland → Fordley	At this point Southland appears at the segment end. Midhurst is an intermediate included on confirmation signs
	Farside southbound	Turn	N/A	→ Fordley *via West Bridge* 4.5 km	
	Nearside southbound	Confirmation	N/A	Midhurst 1.4 km Southland 2.9 km	
	Farside westbound	Confirmation	Bridges Bikeway	Fordley *via West Bridge* 4.5 km	
	Nearside eastbound	Decision	Bridges Bikeway	← Centreville → Southland	
	Nearside eastbound	Turn	N/A	← Centreville 2.0 km → Southland 2.9 km	
	Farside northbound	Decision	Bridges Bikeway	↑ Centreville ← Fordley	
	Farside northbound	Turn	N/A	← Fordley *via West Bridge* 4.5 km	
	Farside northbound	Confirmation	Bridges Bikeway	Centreville 2.0 km	At this point River Path Trail remains beyond its signing distance of 2 km
Z	Farside northbound	Decision	N/A	→ Centreville	
	Farside northbound	Confirmation	N/A	Centreville 3.4 km Fordley *via West Bridge* 5.9 km	
	Nearside southbound	Decision	N/A	← Southland	
	Farside southbound	Confirmation	N/A	Southland 1.5 km	

4.3 Site assessment

Introduction

The preceding section describes the planning process to determine a sign schedule suitable for site assessment. Site assessment is invaluable as it allows the designer to evaluate conditions, determine exact sign locations, and to identify any specific wayfinding challenges.

It is recommended that, where possible, site assessments are made by bicycle to give a representative perspective of the issues.

4.3.1 Geometric considerations

The site assessment is an opportunity to review geometric design considerations that relate to wayfinding including:

- **Should a bike box for a two–stage "hook" left turn be considered?**
- **Are sight lines acceptable?**
- **Are on–road to off–road transitions clear?**

For geometric design guidance please refer to:

The Transportation Association of Canada's Geometric Design Guide for Canadian Roads and Bikeway Traffic Control Guidelines for Canada provides guidance concerning the design of facilities.

National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide also includes additional information especially on Two stage Turn Queue boxes (Bike boxes for left turns).

Principle 4 Be predictable
If riders trust that they will encounter consistent and predictable information, new journeys can be made more easily. (See page 11 for principles.)

4.3.2 Siting signs

Placement recommendations based on TAC and MoTI guidance are provided below. However, engineering judgment and a review of the existing site conditions should also be used on a case-by-case basis to determine the specific placement of each sign.

Sign Types

There are five sign types within the system:

- **D Decision sign**
- **C Confirmation sign**
- **T Turn Fingerboard**
- **W Off-route Waymarker**
- **U Utility Confirmation sign**

Decision signs

Deciding the distance of a decision sign from a turn or transition will be affected by design speed, site lines and slope. Decision signs should be placed along the right-of-way in places where the cyclist can see an upcoming sign from an appropriate distance given the design speed and physical context. For guidance, see TAC Bikeway Traffic Control Guidelines for Canada for minimum stopping sight distances for cyclists.

Signs should be placed further from the intersection on busier streets with a centre turn lane or left turn pocket to decrease the possibility of conflicting cyclist/motorist movements while preparing for a left turn. The location of the sign should exceed the stopping distance needed by the fastest expected travel speed, but should not be placed so far in advance that the relevance of the sign is lost or forgotten.

Confirmation signs

Confirmation signs provide reassurance of direction after decision points, or repeated along long routes with no intervening destinations or decision points as follows:

- After a turn, the sign should be placed 20–30 metres following the intersection or decision point.
- Repeated signs in urban areas, Confirmation signs should be placed about every two or three blocks, or 400 metres, to provide reassurance.
- Repeated signs in rural areas or in places where less reassurance is needed (for example, less built-up areas, low volume streets, or separated pathways) Confirmation signs should be placed roughly every 800 –1,000 metres.

Some other issues to consider include:

1 Turn signs

Turn sign fingerboards have a supporting role and mark the turn. These are normally placed on the near-side of an intersection in close proximity to the turn. At large or complex intersections, it may be appropriate to place signs at both near and far sides or at multiple locations. In some cases, it may be appropriate to locate fingerboards only on the far side of the turn, including:

- **T-intersections**
- **Off-street bike paths**
- **Two-stage turns**
- Where a centre island or refuge is available

2 Place signs as beacons

In addition to the information they provide, bike route signs often provide the only indication of the presence of a bike facility. Confirmation signs should be used to mark the exit point of a bike route across a complex area.

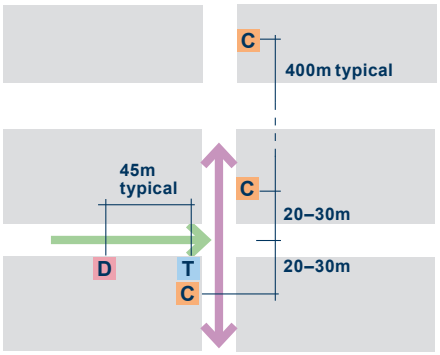
3 Avoid suggesting unintended turns

When assessing sign locations it is important to take account of unintended turn options. A decision sign sited too far from the intersection may risk confusion if it appears to indicate a turn along a laneway, private access or pedestrian path.

4 Don't create obstacles

Signs are additional elements in the street and if poorly located, can restrict the available travelling space on a cycle route and so create a hazard for all users.

Illustrative sign placement for cyclist arriving at a T–intersection from the west



4.3.3 Lateral and vertical placement

Lateral Placement
Signs should be placed so that the distance from the near edge of the nearest traffic lane to the near sign edge is not less than 2.0 m nor more than 4.5 m. For bicycle paths and multi-use paths, this minimum distance may be reduced to 1.0 m. Other exceptions are where conditions do not permit, or where other requirements are specified with regard to signs described in this Guide.

Where there is a raised curb, a sign ordinarily should be placed adjacent to the bikeway with its nearest edge not less than 0.3 m nor more than 2.0 m from the curb face.

Vertical Placement
Signs in rural areas should be mounted at a height of 1.5 m above the near edge of the nearest traffic lane to the bottom of the sign. This height may be as much as 2.5 m for special conditions. Signs in urban and suburban areas should be mounted at a height of 2.0 m to 3.0 m. At locations where pedestrian traffic is likely, the sign should be mounted at a minimum height of 2.0 m.

On all roads permitting bicycle travel, overhead signs must not be less than 4.5 m above the road surface and preferably centred over the traffic lanes to which they apply. For off-road facilities, this vertical dimension may be reduced to 3.0 metres. The vertical clearance requirements for service vehicles must be considered before utilizing this lower clearance.

4.3.4 Route characteristics

A site assessment should always note changes in route character, surface condition or traffic speed and volume. Cyclists often select routes according to a range of factors including directness, suitability of the surface to the user's bicycle, personal risk threshold and physical effort.

Where route conditions change along its length a cyclist may look for alternative routes.

If possible, it is helpful to consider providing signage for alternative routes where:

– Paved routes become unpaved routes, or

– Quieter routes join much busier or faster moving traffic, or

– Routes climb steep hills.

4.3.5 Maps and other wayfinding

Some locations may function as important nodes on the cycling network and be places where additional information such as maps, interpretive, transit information or route diagrams may be welcomed.

Good candidates for such nodes include:

Transit facilities
Train stations, ferry ports or bus exchanges will often lie on or close to designated bike routes. Linking bike journeys with transport is an essential component of bicycle accessibility in many areas of the region.

Trailheads
In some areas, designated bike routes join trails and recreational paths. These provide access for recreational cycling and can be of regional or local importance as leisure or sporting attractions.

Principle 3 Maintain movement
Continuous, visible and clear wayfinding will help identify routes and enable cyclists to maintain an even pace. (See page 11 for principles.)

4.4 Sign design

General guidance

Typeface
The typeface selected for the wayfinding sign designs is the Regular weight of ClearviewADA Condensed. This font has been selected as it meets US Americans with Disabilities Act (ADA) guidelines for legibility, and the Clearview family of fonts are increasingly being adopted for road signage in jurisdictions across North America.

ClearviewADA Condensed Regular is also a space-efficient typeface which is important to minimizing sign size and the resultant visual impact and use of materials. The font is designed by Terminal Design and is available from their website www.terminaldesign.com.

Vector templates are included as part of this plan to help municipalities implement the sign guidelines.

Typesize
For legibility at utility cycling travel speeds, these guidelines recommend typesizes of 50 mm cap height for destinations and 40 mm cap height for route names and subtext lines.

In sensitive or quiet off-street situations it may be appropriate to reduce typesize to 40 mm cap height for route names and directions and 35 mm cap height for subtext lines. This option could also be used if it provides better compatibility with branded signs.

The cap height of a typeface is measured as the distance from the baseline to the top of the capital letter.

Sign sizes

A consideration in the design of the system is optimizing sign sizes in order that they are manageable and affordable to produce but large enough to convey the information clearly.

All signs have standard sizes which will provide a sign large enough to show typical information.

Turn fingerboards, Off-network Waymarker and Utility Confirmation sign sizes are demonstrated in the design specifications on the following pages.

Decision and Confirmation signs conform to the standards set out by TAC. Hence the standard width of Decision and Confirmation signs is fixed at 600 mm. Sign heights are however changeable subject to the required content.

The standard height of a Decision sign is 600 mm and a Confirmation sign is 750 mm. Both of these signs can be increased by an increment of 150 mm to 750 or 900 mm respectively if the necessary content does not fit within the standard size.

Where the designer believes the sign height needs to be increased further, the following steps should be followed until content fits within the sign:

1. Increase the standard sign height by 150 mm
2. Use standard abbreviations. These are listed within the relevant sections on the following pages
3. Remove a destination from the list adjusting upstream signs if necessary to ensure that once a destination is mentioned, it is shown consistently on Confirmation Signs until it is reached.
4. Reduce text size to 40 mm for destination names and 35 mm for subtexts (not advised for complex urban areas or where cyclists may be travelling faster than average, such as downhill)
5. If none of these options provide adequate space then consider taller signs using standard increments of 150 mm.

Decisions and Confirmation signs are designed to MUTCDC guidance, with heights increased in 150 mm increments

Complementing warning and regulatory signage

Wayfinding signage should be developed to complement other higher order signage including warning and regulatory information. This may be achieved by co-location of signs on a single pole, composite signage panels or other methods described by local bylaws and practice.

A possible example of composite signage for a shared path is shown right. Icons may include any combination of those shown, or other uses such as walking or horse riding. Please note this is for illustration only and not part of the CRD bicycle wayfinding standards.

Municipal branding
Where necessary, a potential option for adding municipal identity to bicycle wayfinding is the addition of a branded sign plate above the sign panel to display municipal branding.

Alternatives might include alternate locations on the pole, a vinyl decal or finial.

Note: This is for illustration only and not part of the CRD bicycle wayfinding standards. The CRD logo has been used as a placeholder for municipal identity in the above example.

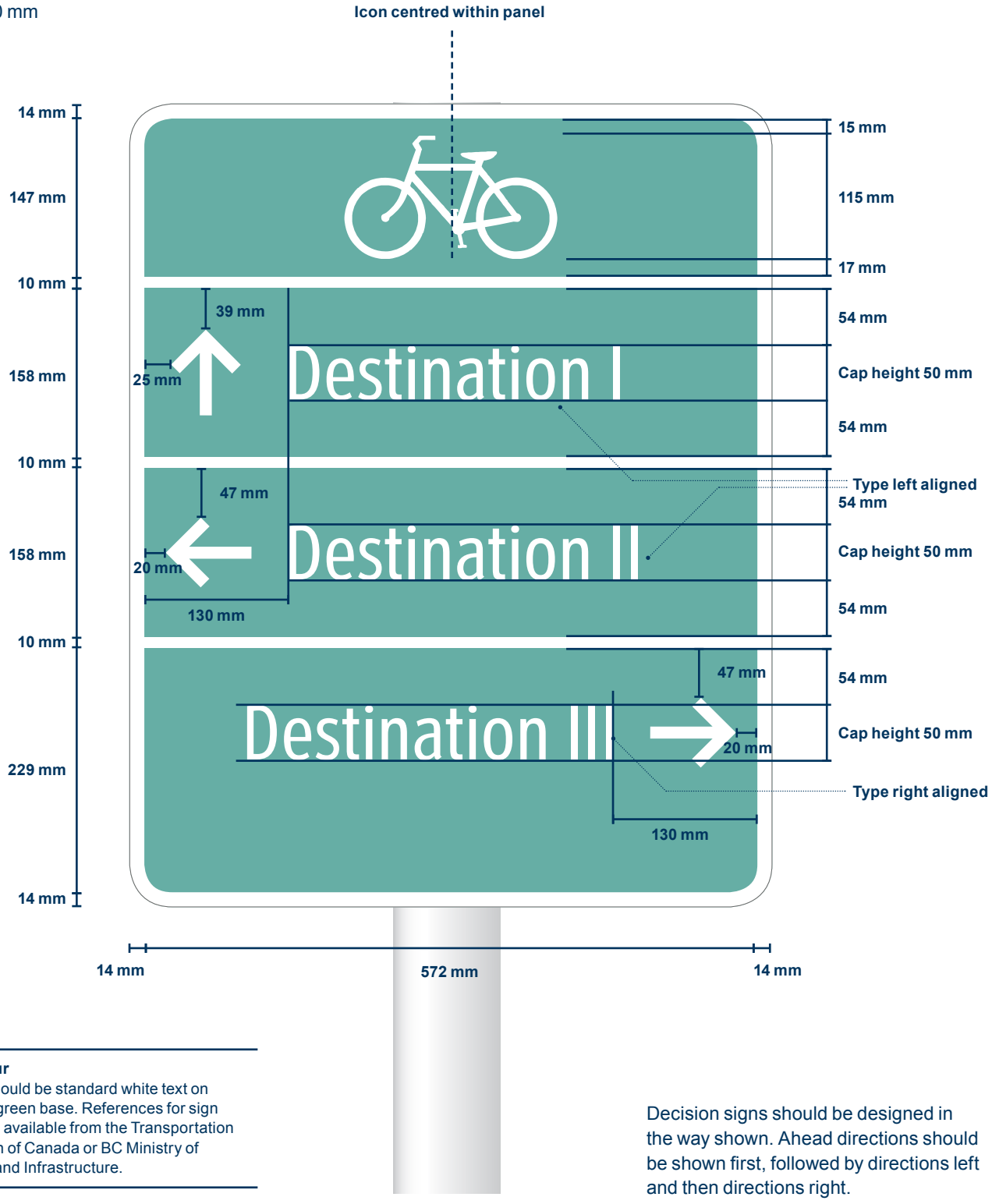
Examples of branding routes with vinyl decals, additional sign panels or finials.

D

4.4.1 Decision signs

Standard dimensions

Panel size
600 x 750 mm



Sign colour
All signs should be standard white text on a highway green base. References for sign colours are available from the Transportation Association of Canada or BC Ministry of Highways and Infrastructure.

Decision signs should be designed in the way shown. Ahead directions should be shown first, followed by directions left and then directions right.

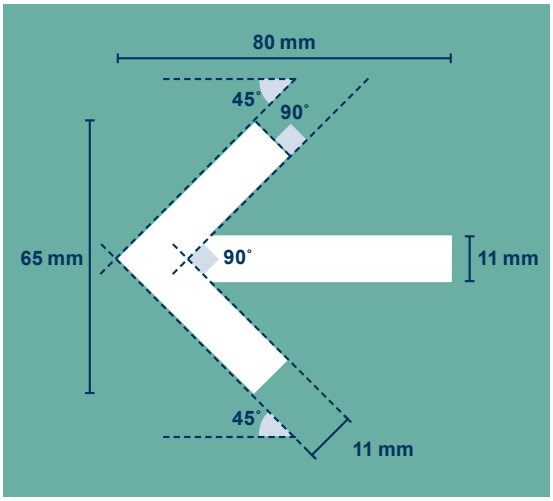
D

Standard elements

Bicycle icon

The bicycle icon should appear as shown.

Directional arrow

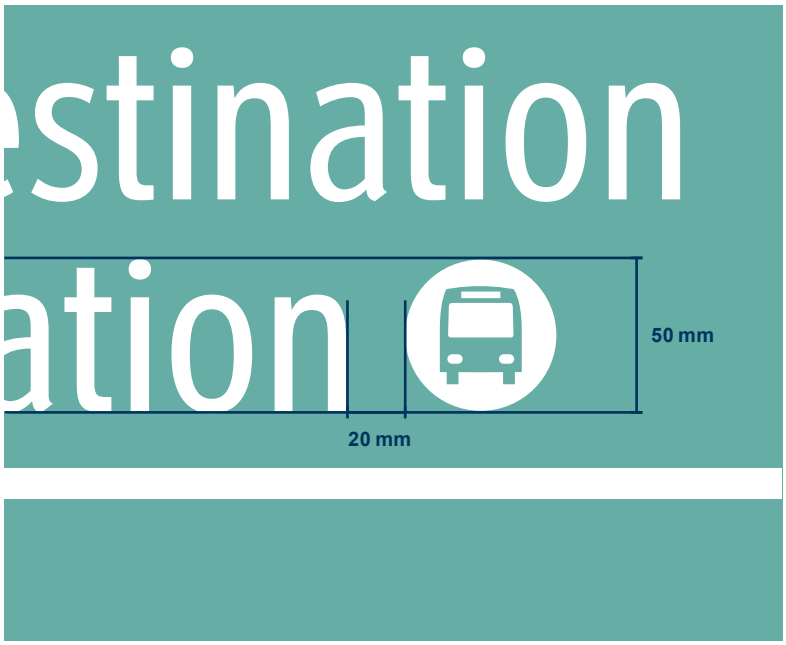


Arrows should conform to the specification shown. These are used as standard highway arrows may be less easily recognized at the small sizes appropriate to bicycle signage.

They should only be used at the orientations illustrated below. These orientations are set at 90˚ increments.

Arrows should conform to ahead, left and right directions only. Where unusual angles are required a Turn fingerboard or diagrammatic Decision sign (as shown on page 20) is preferable.

Using icons

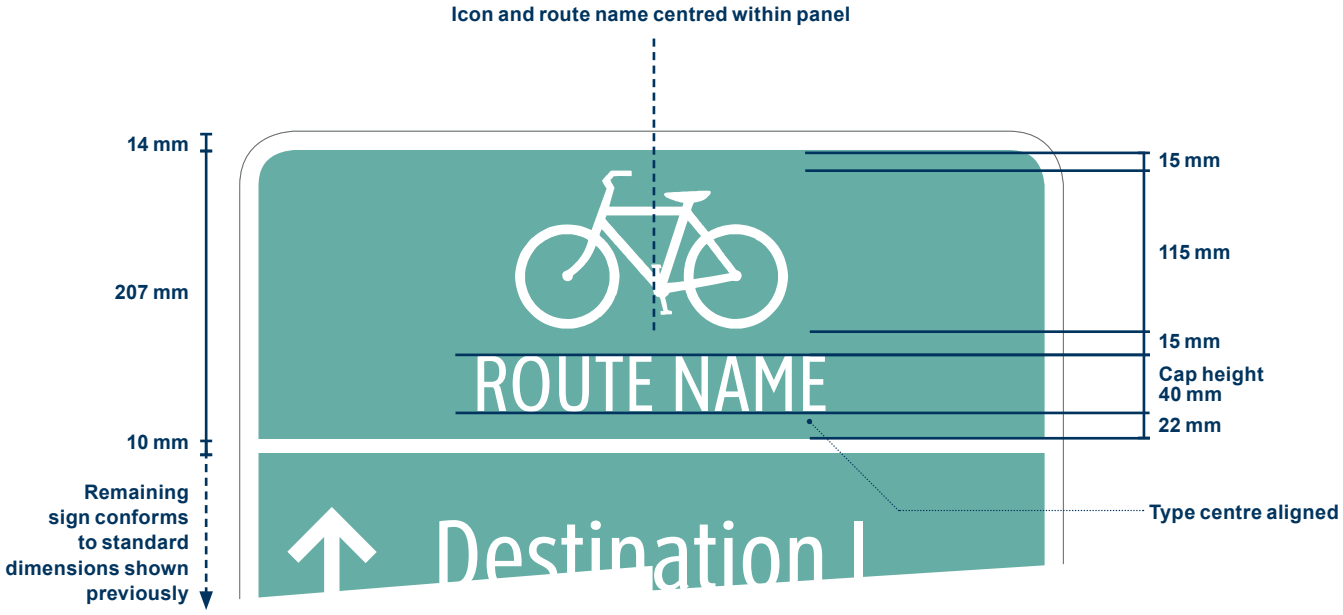


The use of icons to aid quick comprehension of common facilities is advised. Standard icons can be found in the design templates that accompany these guidelines.

Icons appear at the end of destination names. They should be used in addition to the identifier ('Station' or 'Exchange', or their abbreviated versions, 'Stn' or 'Exch') not as a replacement.

D

Adding a route name



Adding a subtext

Subtexts should be incorporated under the relevant destination name as shown. They should always be included on a second line, with a lowercase 'via'.

Note that the 158 mm containing area does not change regardless of the introduction of the new line.

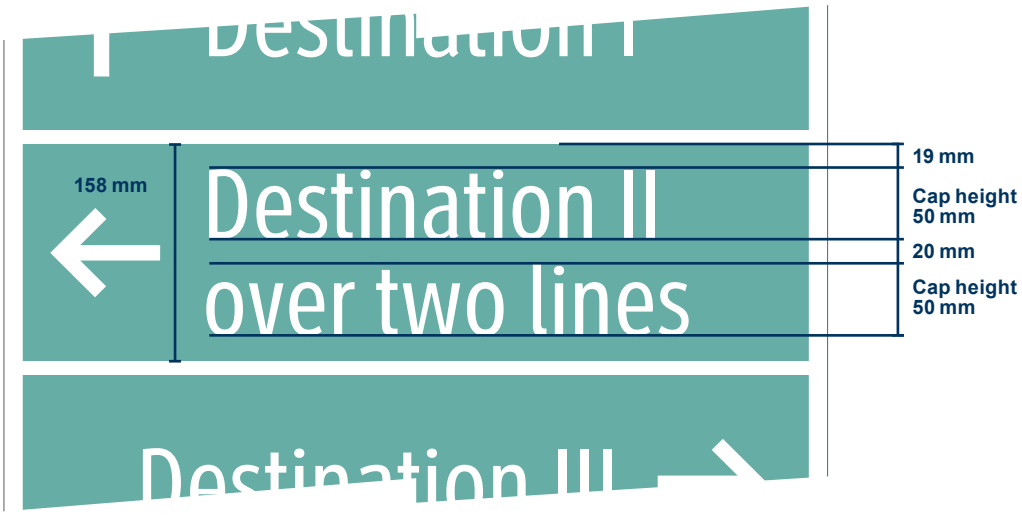
When adding a subtext to a destination name that is already two lines, the designer should use the three-line specification shown on page 57.

D

Destination names that run to two lines

Longer destination names may require two lines. This should be done as shown.

Again, the 158 mm containing area does not change regardless of the introduction of the new line.



Standard Abbreviations

Generally abbreviations should be kept to a minimum. However where necessary the following standard abbreviations can be used to avoid lengthy destination names.

Exchange	=	Exch
Bridge	=	Br

North	=	N
South	=	S
East	=	E
West	=	W

D

Destination names that run to three lines

On rare occasions it may be necessary to run a destination name over three lines.

Due to the reading time and space requirements, this is undesirable and should be avoided if possible by using standard abbreviations shown below.

Where essential displaying a destination name over three lines will require the sign to be extended to the next standard sign increment which is 900 mm. All other dimensions are retained.

When a destination runs to three lines the panel should be extended to 900 mm in height. See page 51 for more information on sign sizes.

D

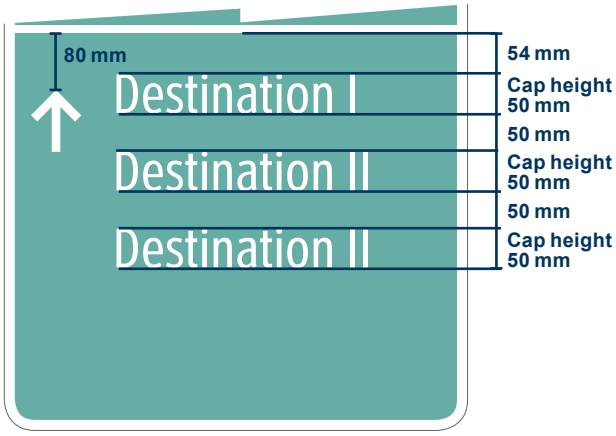
More than one destination in a given direction

More than one destination in an ahead direction

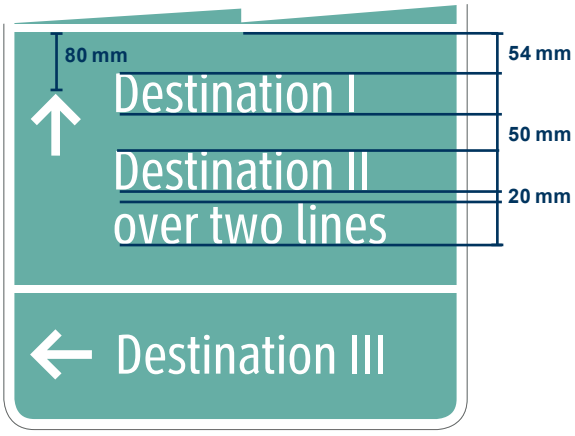
When there is more than one destination in the ahead direction, the standard dimensions should be altered to appear like this.

Note that the dimensions of the left or right direction do not change, they only shift down to accommodate the greater height of the ahead direction.

Any dimensions not shown conform to the standard dimensions previously shown.



When all destinations are straight ahead, the layout shown should be used.



If a destination name requires a second line it should be implemented as shown previously with a 20 mm gap between lines. Subsequently all elements below are moved down to accommodate the new line(s). If more than one destination requires a second line the sign panel will have to be extended to 900 mm. All other dimensions stay the same.

D

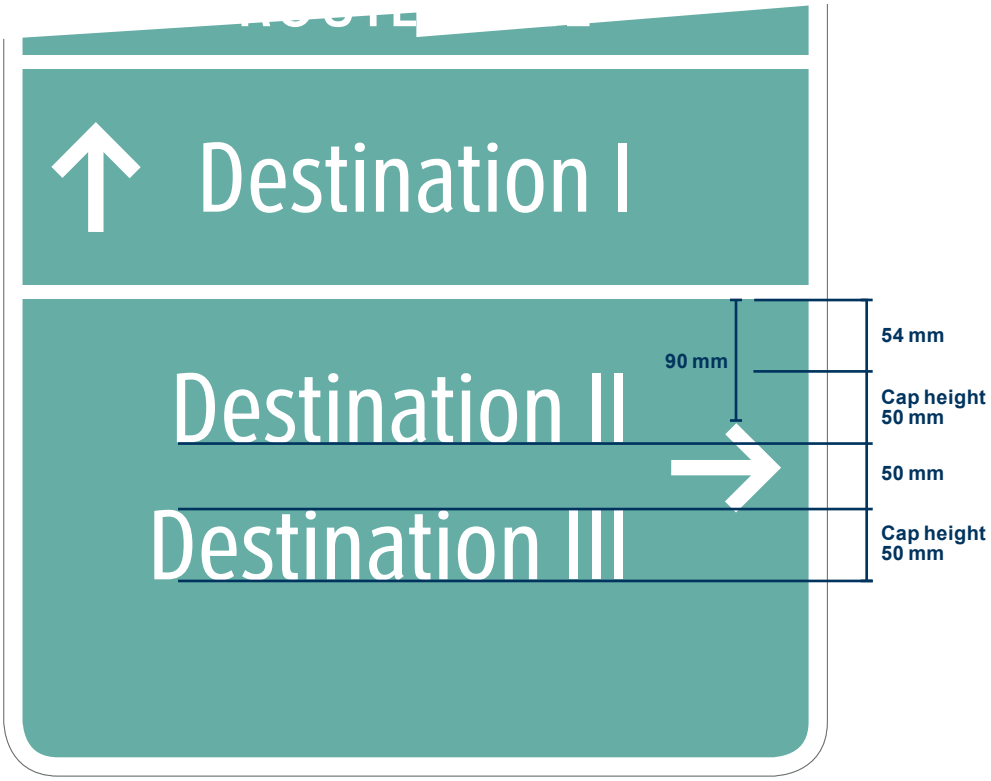
More than one destination in a left or right direction

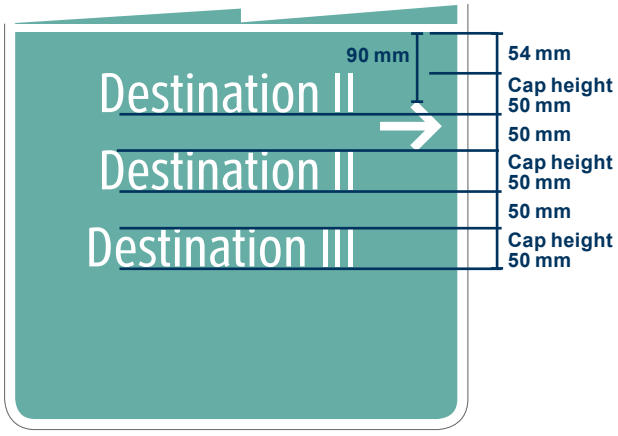
When there is more than one destination in a left or right direction, the standard dimensions should be altered to appear like this.

The dimensions of the ahead direction does not change.

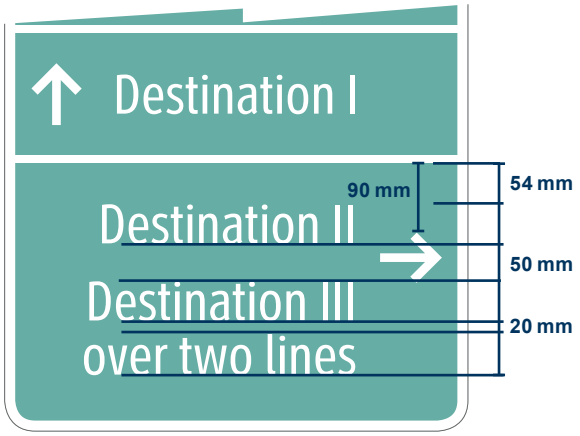
Any dimensions not shown conform to the standard dimensions previously shown.

The examples shown illustrate destinations in the right direction. As would be assumed from previous sign illustrations, if creating a sign with destinations in the left direction, replicate the layout from the left edge of the sign instead of the right.





When all destinations are in a single direction turning from the route of travel the layout shown should be used.



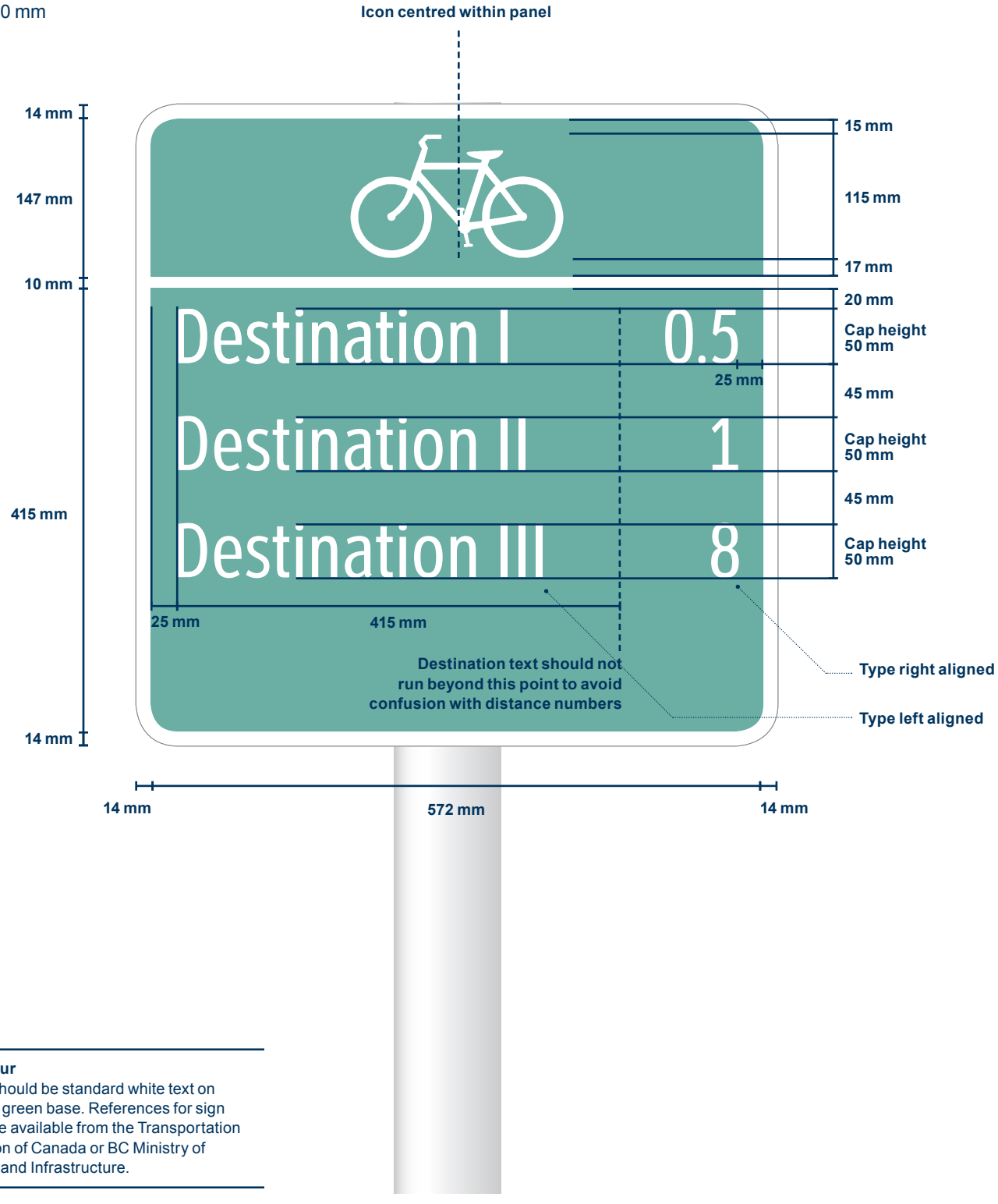
If a destination name requires a second line it should be implemented as shown previously with a 20 mm gap between lines. Subsequently all elements below are moved down to accommodate the new line(s). If more than one destination requires a second line the sign panel will have to be extended to 900 mm. All other dimensions stay the same.

C

4.4.2 Confirmation signs

Standard dimensions

Panel size
600 x 600 mm



Sign colour
All signs should be standard white text on a highway green base. References for sign colours are available from the Transportation Association of Canada or BC Ministry of Highways and Infrastructure.

C

Standard elements

Bicycle icon

The bicycle icon should appear as shown.

Icons

See page 54 for how to incorporate icons into signage.

C

Adding a subtext

Subtexts should be incorporated under the relevant destination name as shown. It should always be included on a second line, with a lowercase 'via'.

When adding a via subtext to a destination name that is already two lines, use the three-line specification shown opposite.

The top margin shown on previous pages of 20 mm is retained if the destination is at the top of the list.

If more than one destination name runs over two lines, the panel will have to be extended in height to 750 mm. All other dimensions are retained.

Destination names that run to two lines

Longer destination names may extend over two lines. This should be done as shown.

If more than one destination name runs over two lines, the panel will have to be extended in height to 750 mm. All other dimensions are retained.

C

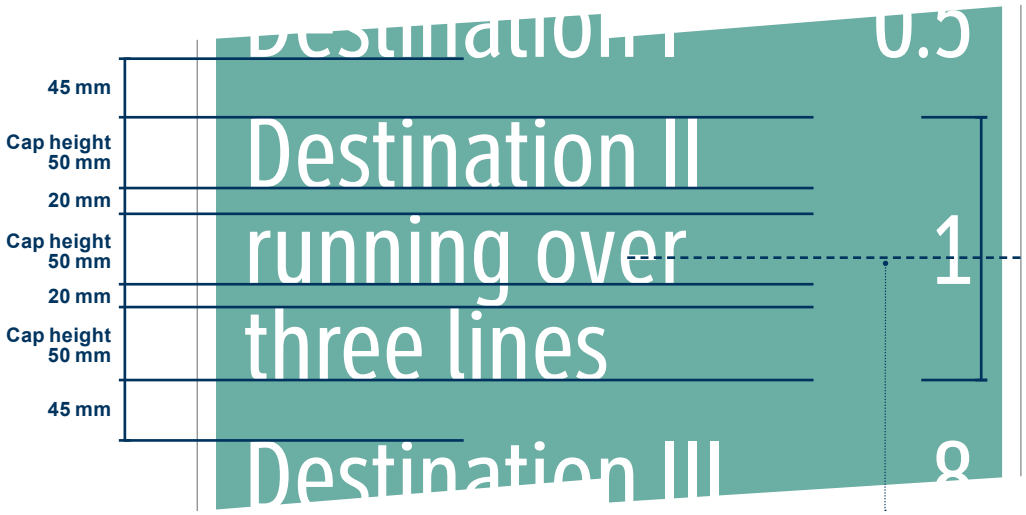
Destination names that run to three lines

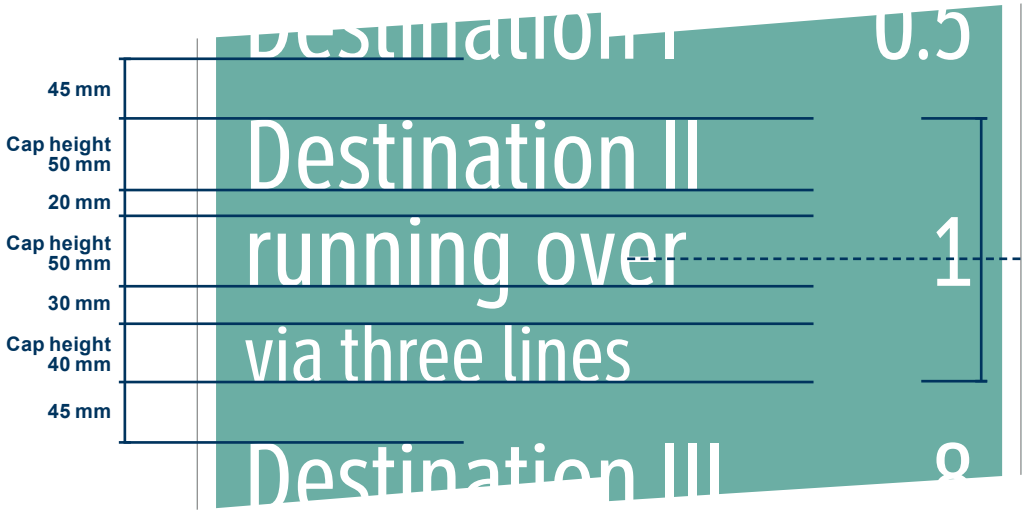
When there is more than one destination in a left or right direction, the standard dimensions should be altered to appear like this.

The dimensions of the ahead direction does not change.

Any dimensions not shown conform to the standard dimensions previously shown.

The illustration shows an example of a right direction. As previously, the left direction is a mirror image of the right direction, with dimensions measured from the left of the sign instead of the right.





When a destination runs to three lines the panel should be extended to 750 mm in height. See page 51 for more information on sign sizes.

Standard Abbreviations

Generally abbreviations should be kept to a minimum. However where necessary the following standard abbreviations can be used to avoid lengthy destination names.

Exchange	=	Exch
Bridge	=	Br

North	=	N
South	=	S
East	=	E
West	=	W

T

4.4.3 Turn Fingerboards

Standard dimensions

Panel size
850 x 215 mm

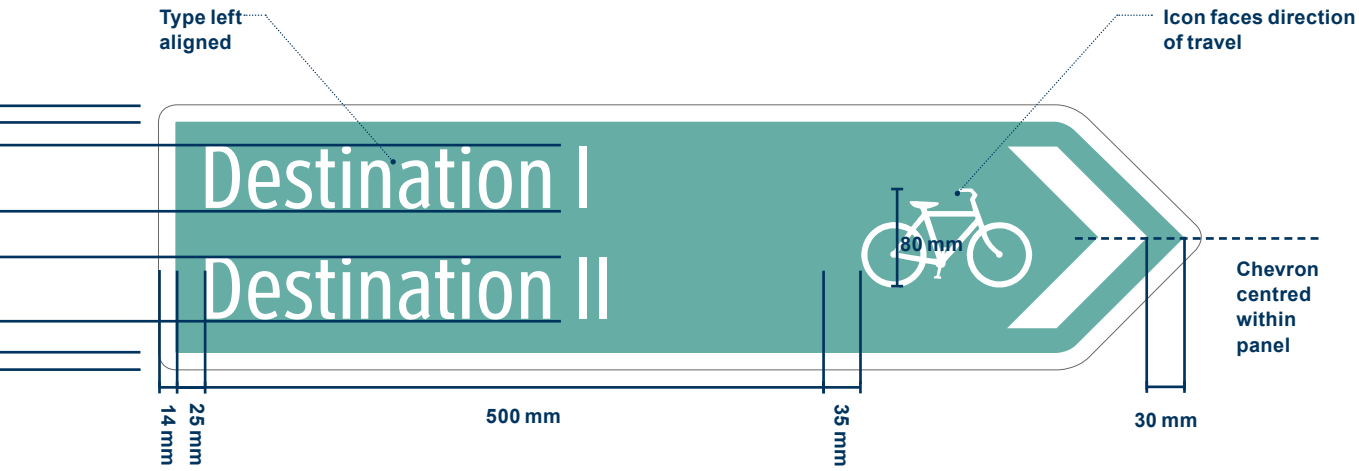
Where space permits, end-fitted fingerboards present a more aesthetic arrangement that also increases the directional sense of the sign

Sign colour
All signs should be standard white text on a highway green base. References for sign colours are available from the Transportation Association of Canada or BC Ministry of Highways and Infrastructure.

Fingerboards should take the form shown. They may be mounted on top or on the shaft of longer poles. Fingerboards may be centre or end mounted depending on circumstances.

This layout is the standard layout with two single line destinations on each fingerboard.

Further variation with single destinations and multiple line destinations are shown on the following pages.



Standard elements

Bicycle icon

The bicycle icon should appear as shown.

Icons

See page 54 for how to incorporate icons into signage.

T

Fingerboards with only one destination

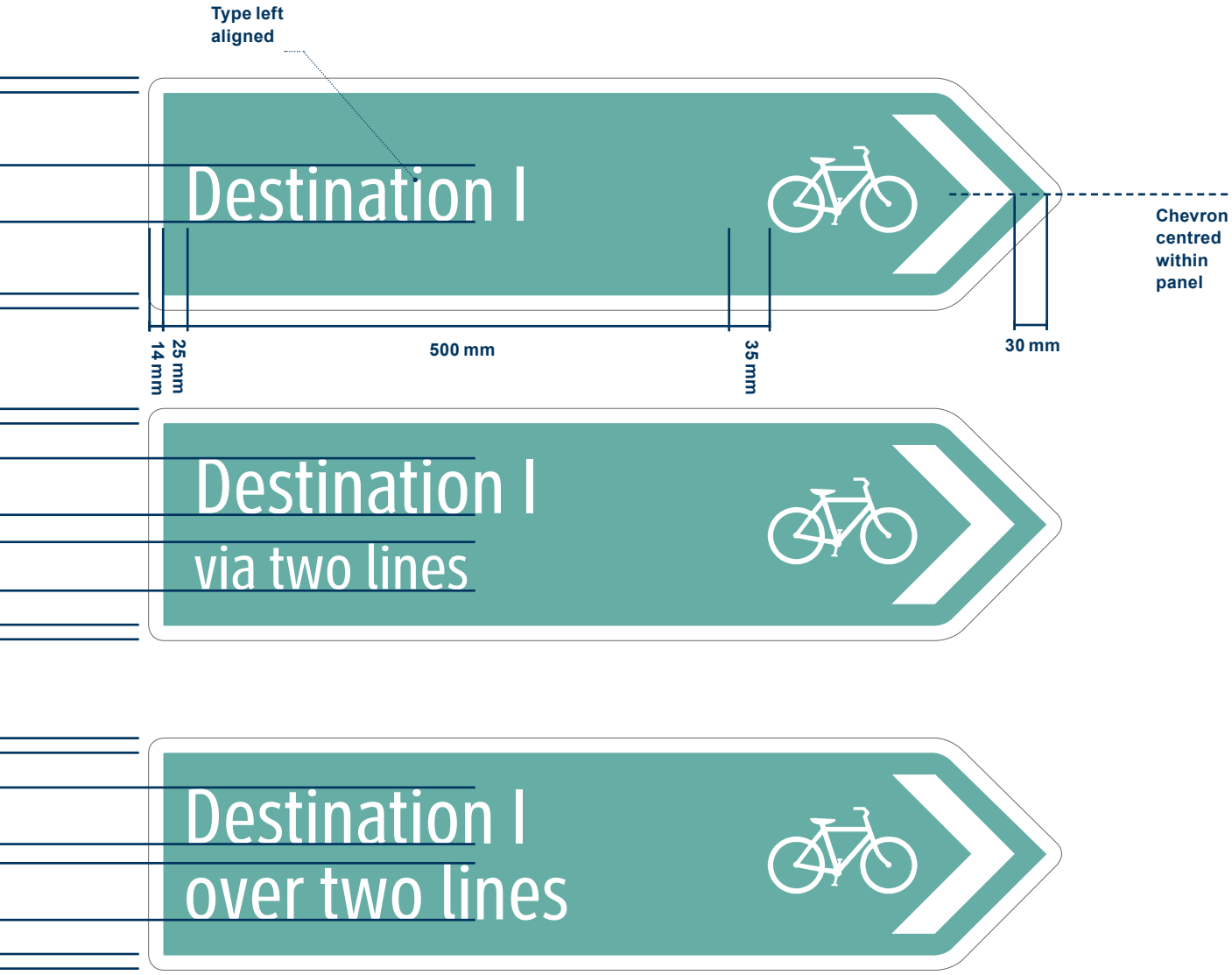
Panel size
850 x 215 mm

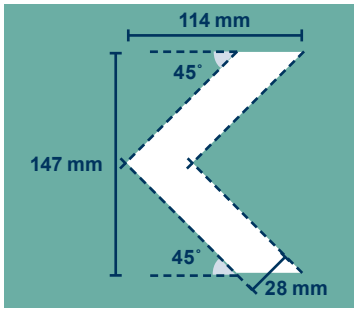
1 line destination

1 line destination with subtext

2 line destination

T





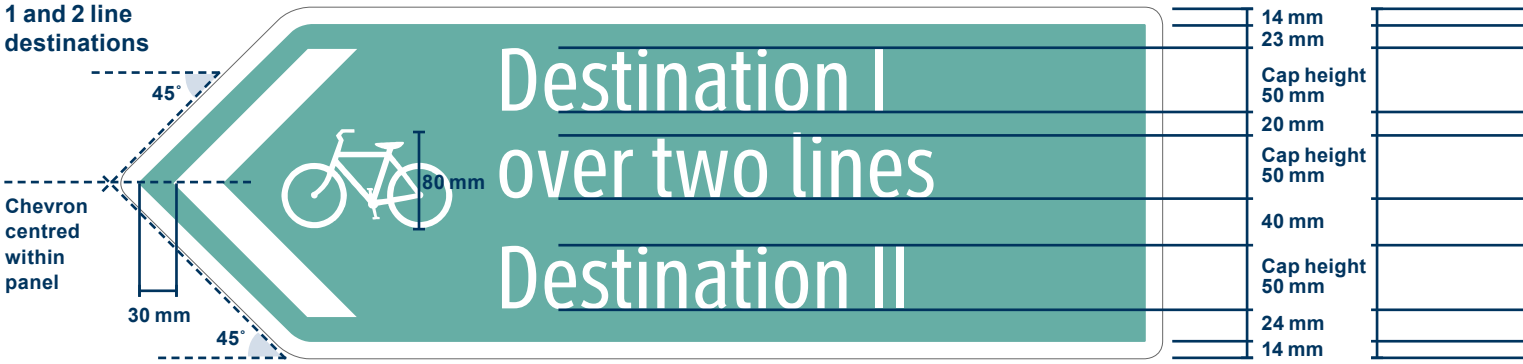
Chevron detail

T

Fingerboards with two and three-line destinations and sub texts

Panel size
850 x 285 mm

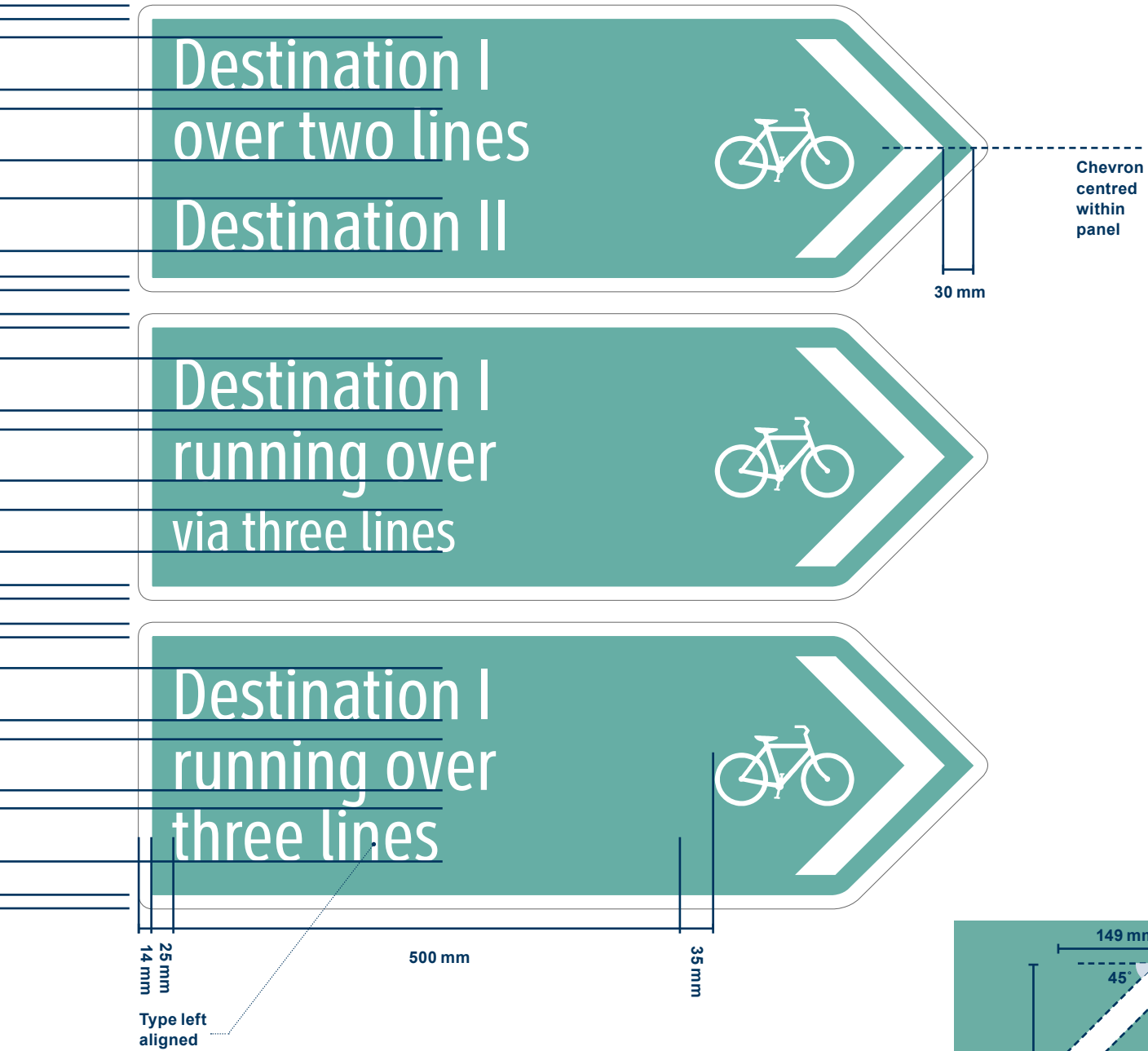
1 and 2 line destinations

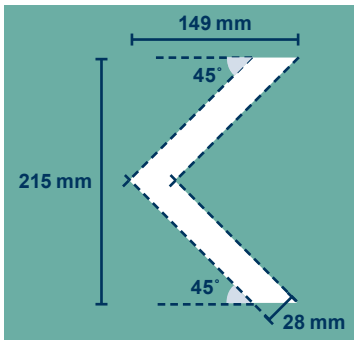


2 line destination with subtext

3 line destination

T





Chevron detail

T

Fingerboards with more than one, two-line destinations

Panel size
850 x 350 mm

Two 2 line destinations

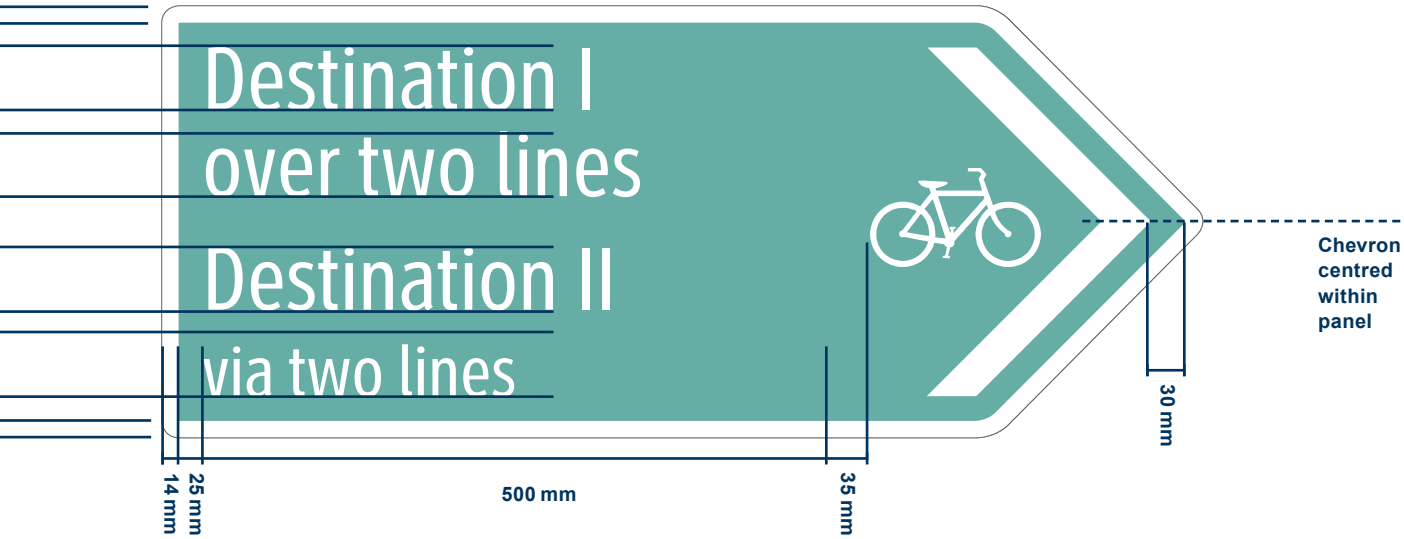
Standard Abbreviations

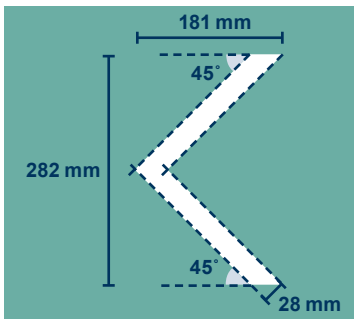
Generally abbreviations should be kept to a minimum. However where necessary the following standard abbreviations can be used to avoid lengthy destination names.

Exchange	=	Exch
Bridge	=	Br

North	=	N
South	=	S
East	=	E
West	=	W

T



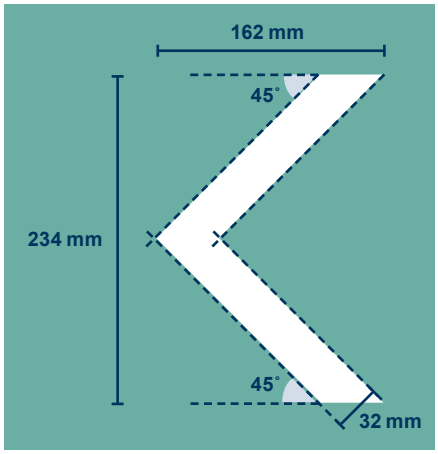


Chevron detail

4.4.4 Off-network Waymarkers

Standard dimensions

Directional chevron



Bicycle icon

The bicycle icon should appear as shown.The bicycle should face the direction of travel.

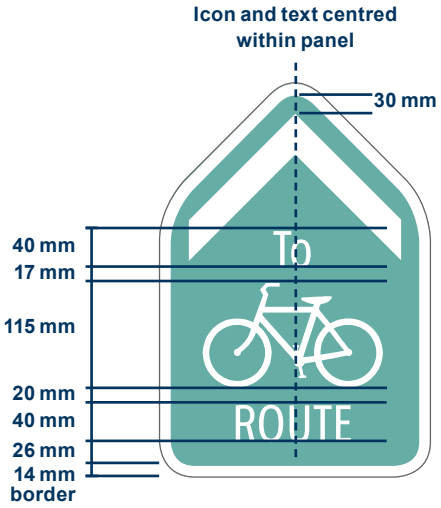
Panel size
300 x 450 mm

Sign colour
All signs should be standard white text on a highway green base. References for sign colours are available from the Transportation Association of Canada or BC Ministry of Highways and Infrastructure.

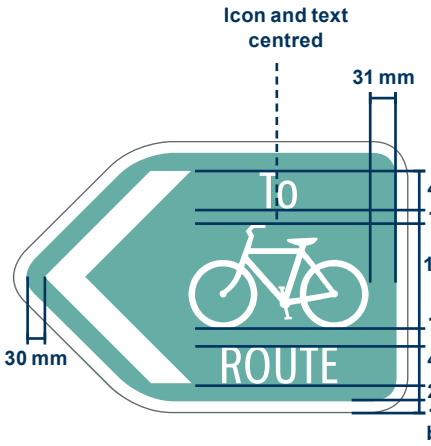
Off-network Waymarkers should take this form, with variation in directions (ahead, left and right) and route name length (one or two lines) shown over opposite.

Text and bicycle icon dimensions

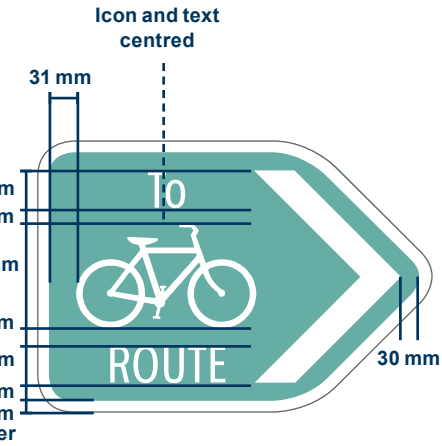
Ahead direction



Left direction



Right direction



U

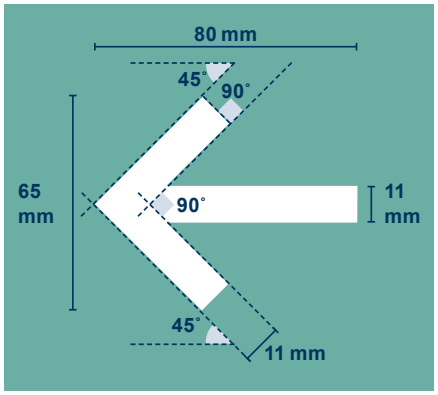
4.4.5 Utility Confirmation Signs

Standard dimensions

Bicycle icon

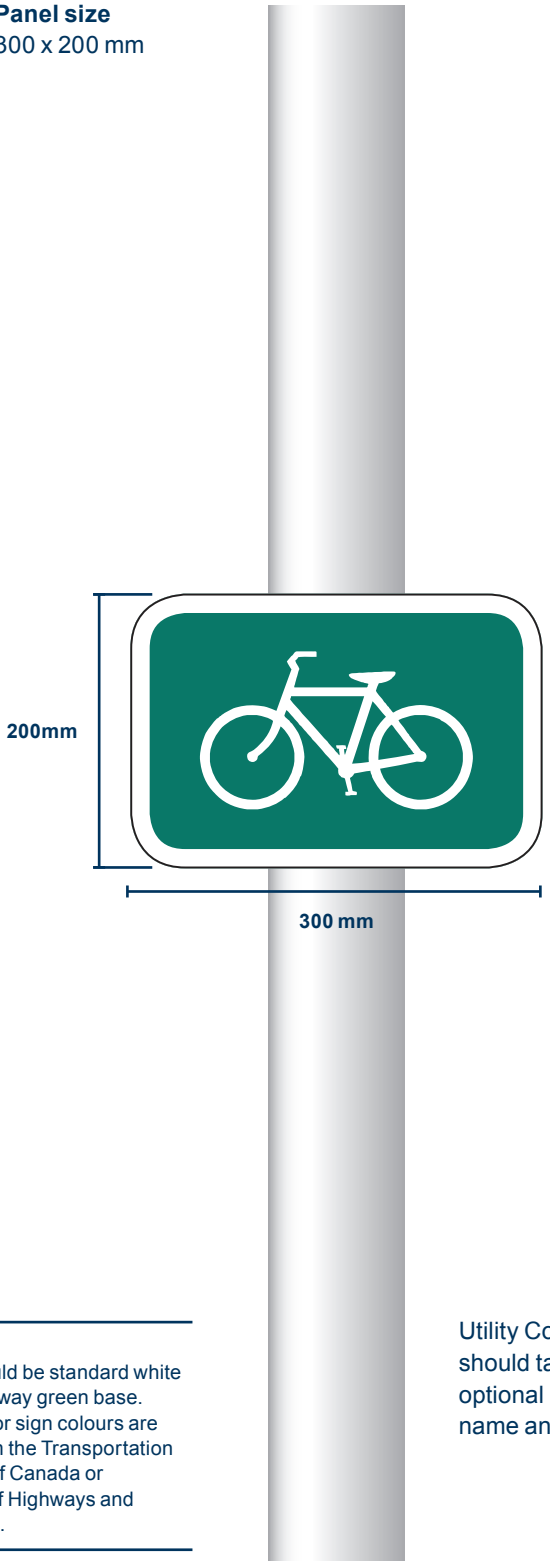
The bicycle icon should appear as shown.

Directional arrow



Arrows should conform to ahead, left and right directions only.

Panel size
300 x 200 mm



Sign colour
All signs should be standard white text on a highway green base. References for sign colours are available from the Transportation Association of Canada or BC Ministry of Highways and Infrastructure.

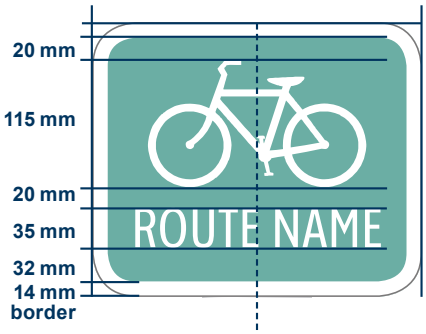
Utility Confirmation signs should take this form, with optional inclusion of route name and arrow panel.

U

Adding a route name

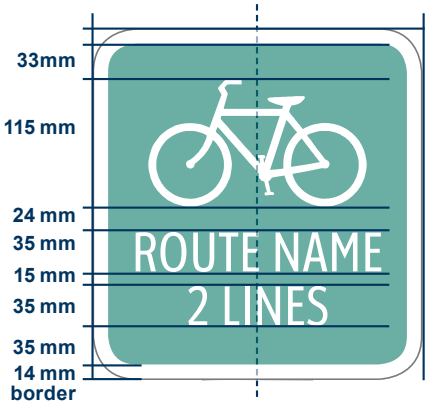
1 line name

Panel size
300 x 250 mm



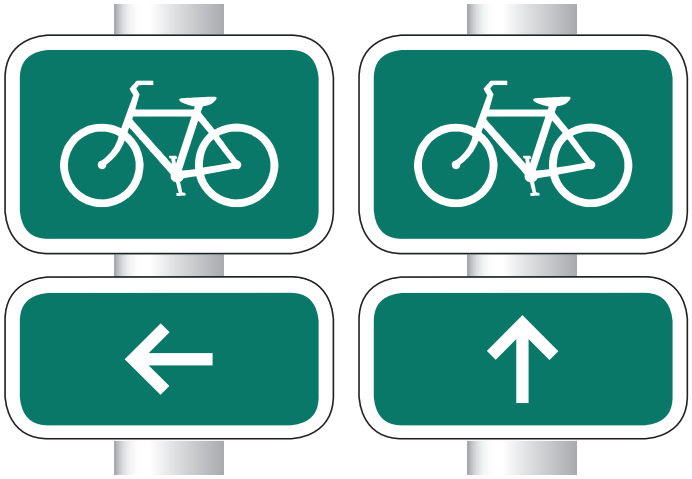
2 line name

Panel size
300 x 320 mm

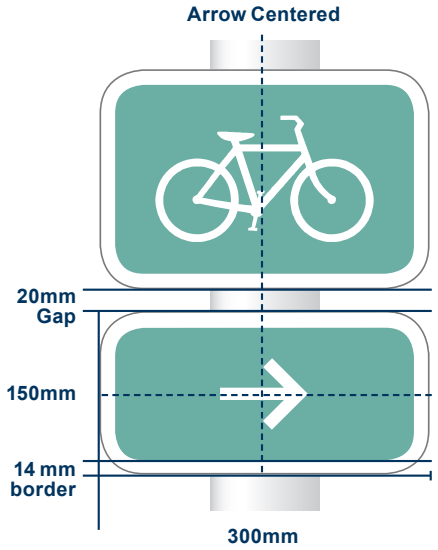


Icon and text centred

Adding a direction



Left direction **Forward direction**



Arrow panel size
300 x 150mm

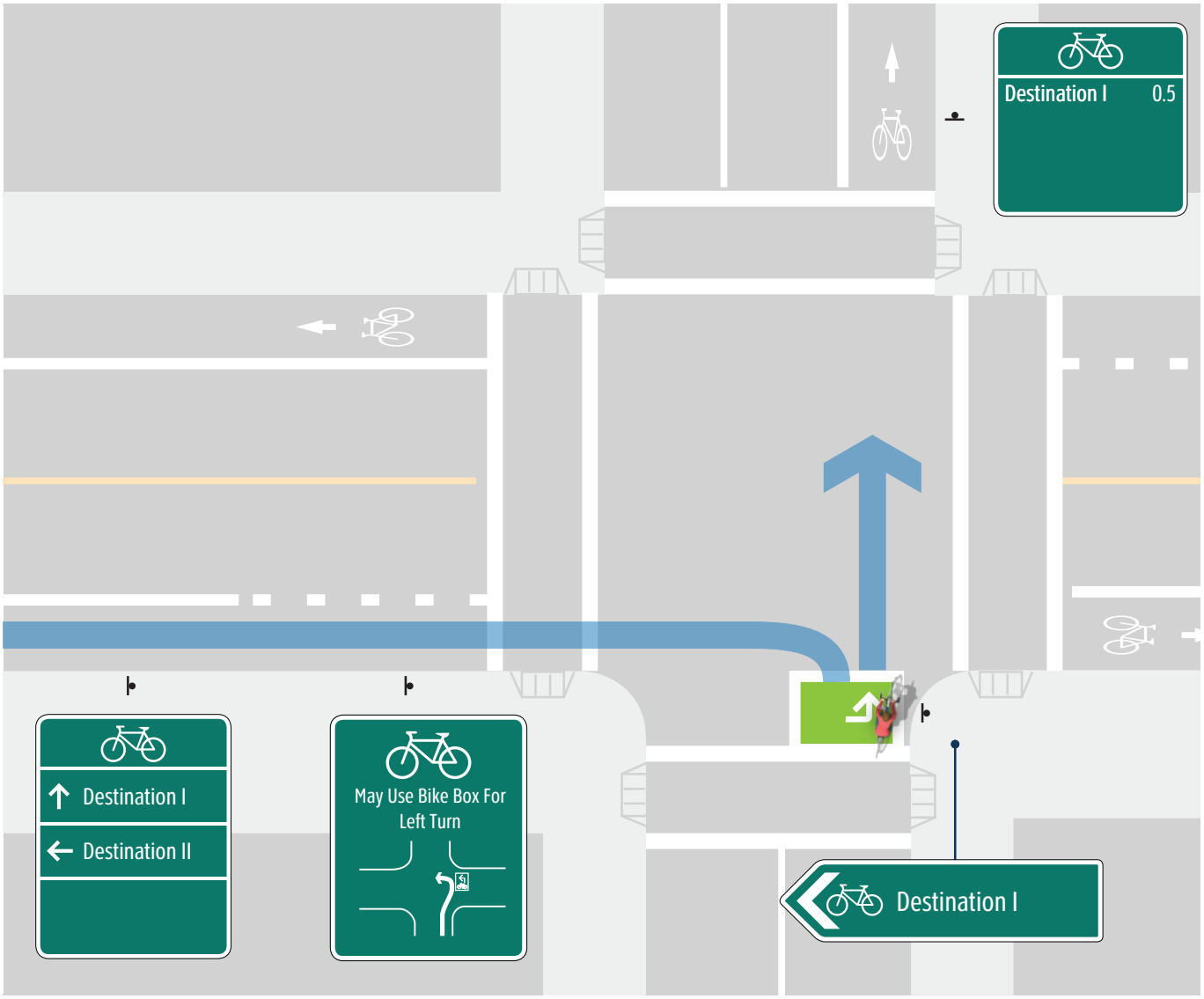
4.4.6 Specifying for manufacture

CRD municipalities determine their own standards for signage products. Specifications for materials, reflectivity, mounting and installation methods should be added to the agreed sign schedule in a manner appropriate to the application and relevant local, provincial and national sign production standards.

Material specifications, including reflectivity, are covered by the Manual of Uniform Traffic Control Devices for Canada (Transportation Association of Canada, 2014).

Appendix 1

Intersection example



Bikeway design shown is to display typical signage requirements only, and is not inteded to illustrate recommended bikeway design. Consult TAC Bikeway Traffic Control Guidelines and NACTO Urban Bikeway Design Guide for guidance, ensuring the design minimizes conflicts with right turns.

Making a difference...together