

# Hiking Trail Trailability Guidelines



***A trail user can minimize most of the risks encountered on a trail with effective pre-planning.***

Therefore, it is imperative that trail stewards inform potential trail users of what to expect on the trail, what provisions they will need and provide that information in a format that is consistent across the province. Doing so will assist the trail user in making an informed decision as to whether this trail is within their abilities to use the trail thereby improving the users trail experience.

Trailability focuses on the individuals own level of trail-use readiness. Recreational trails, in Ontario, are provided from the perspective of “users assume all risks”. The Ontario Trails Council's idea of trailability is a series best practices that allow users to self assess their level of preparedness insofar as their physical ability to use the trail. Along with the characteristics of the trail, the trail steward can provide information to users as to what provisions the user should bring to the trail. Use of this tool will be optional. If a trail organization chooses to adopt the methodology included in this document, the trail steward must comply with the provisions of this document.

Trailability of the _____ trail					
Trail Classification	Permitted Users	Trail Length	Trail Difficulty	Accessibility	Other Amenities
<b>Class 2</b>					Rest Area – Yes Washroom – Yes Cell Service – No

The colours of the circles are provided as a visual clue as to the level of preparedness for the trail, where Green – lowest level of preparedness and user effort (for a physically fit individual), Blue – low to moderate, Black – moderate to high and Red – highest or restricted level of preparedness.

The words must, should and may are used throughout this document, where: Must indicates a mandatory condition; Should indicates an advisory condition; May indicates a permissive condition.

Use of this Trailability tool combined with the OTC Trail Classification, which identifies such things as surface conditions of the trail and frequency of maintenance, should: 1) minimize the number of users becoming overwhelmed by an unexpected trail environment requiring emergency assistance; and 2) improve the users trail experience.

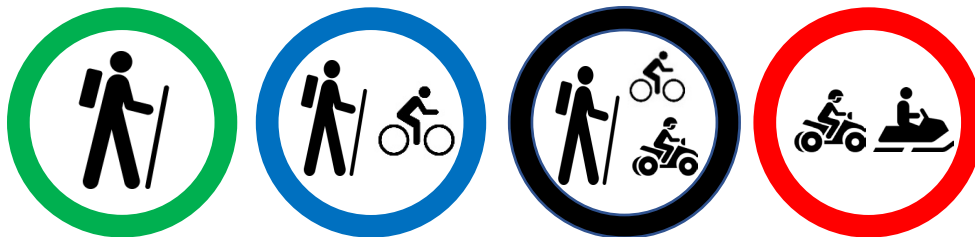
The columns shown in the above table are defined as follows.

### Column 1 – Trail Classification

The Ontario Trails Council (OTC) has developed a Trail Classification that describes the trail: the tread type (asphalt or concrete, compacted granular, natural) and width of the tread, the environment within which the trail is located (urban, natural, wilderness) and the level of maintenance among other things. The trail steward must include which OTC Classification their trail falls within at the kiosk or standalone sign and/or website and provide a description as to how their trail fits into the classification.

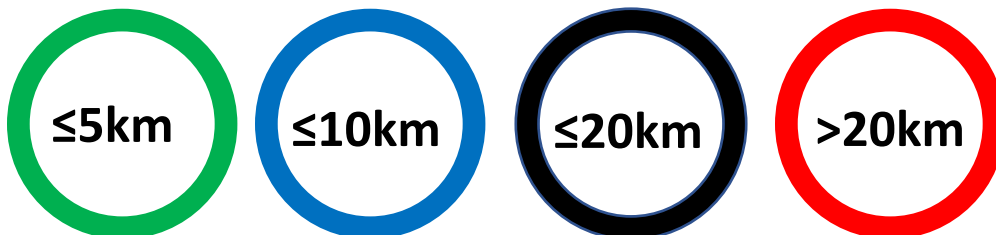
### Column 2 – Permitted Uses

Permitted uses prepares users for the alternate modes of travel that may be on the trail. The coloured circle emphasizes the type of users, where a hiking only trail has a green circle, a non-motorized- multi use trail is blue, black is used for a motorized multi-use trail and red for a motorized only trail. The blue, black and red circle must include all permitted users. As an option, if there are seasonal variations in trail uses, consider swapping out the seasonal changes at the beginning and end of the winter season thereby reducing the number of symbols within the circle.



### Column 3 – Trail Length

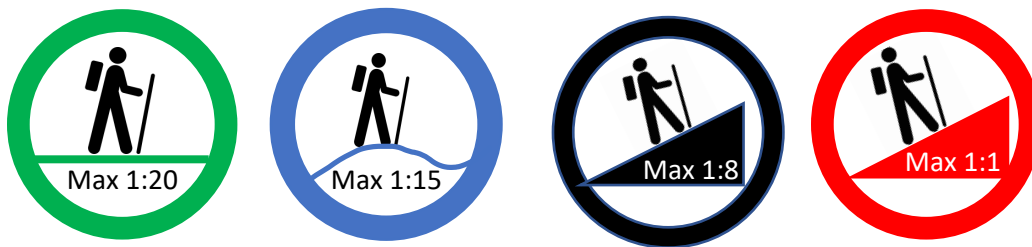
There are 4 categories for trail length, a trail that is less than 5 kilometers in length is green, blue is a trail <10km, black is <20km and red is >20km. At the kiosk the trail steward must post the appropriate colour and within that circle identify the actual length of the trail to the nearest meter, see the example on page 1.



In addition to the actual length of the trail, the trail steward may add below the length the time it would take for an able body person to hike the trail, see example page 1. For linear trails where the trail dead ends and a hiker must follow the same path out to return to the trailhead, the trail length must be the total of the distance in and out.

## Column 4 – Trail Difficulty

To determine how difficult it is for a user to hike a trail, is tenuous. For one person a hike of a trail may be an easy task, for another person on the same trail the effort required may be significant. Whether a trail has a constructed or natural tread, minimal or significant change in longitudinal grade, firm walking surface or a walking surface strewn with boulders all these elements have a role in how difficult a trail will be to navigate. To assist a trail user in determining their ability to use the trail the 4 colours green, blue, black and red are used to provide a visual clue as to the level of physical effort that will be required. Added to the coloured circle will be the maximum longitudinal grade change that will be encountered on the trail expressed as “Rise over Run” where for example a “Max 1:8” means a rise in elevation of 1m in an 8m length of trail. NOTE: the trail steward may choose to add percent grade to the icon along with the rise over run information.



To assign a trail to a specific colour the following guideline is provided:

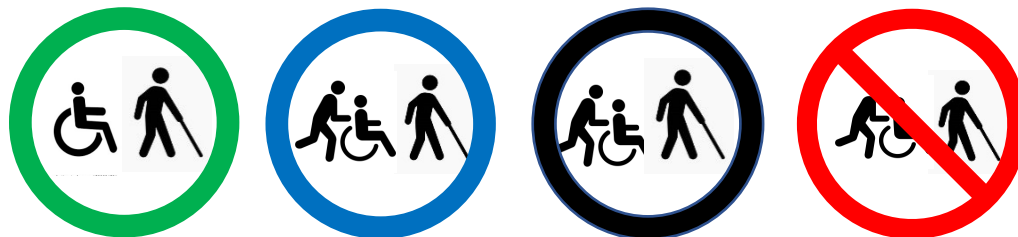
Green – to be assigned to the Green circle the longitudinal (running) grade must be relatively level (flat), smooth and even over the length of the trail. Longitudinal grade will be 1:20 or flatter. The trail would be considered an easy walk for a physically fit person.

Blue – is a trail with small hills that gently rise and fall. The rolling nature of the terrain may not extend over the entire length of the trail. The trail may transition from flat to rolling. Isolated areas of flat terrain must not be taken into consideration when assigning the trail to the blue level of difficulty. If the longitudinal grade of the trail is greater than 1:20, to remain AODA compliant, the trail must have rest areas as per the requirements of AODA. The trail would be considered minimal to modest effort for a physically fit person to hike this trail.

Black – is a trail that transitions from rolling hills to a more robust, rugged terrain where the tread and surrounding land is uneven, there are fewer than 25 five-meter (5m) ground contours per kilometer with a maximum longitudinal grade, rise or fall, of less than or equal to 1:8. Isolated areas of flat or rolling terrain must not be taken into consideration when assigning the trail to the black level of difficulty. If a person with a mobility issue cannot traverse the trail with assistance the trailability symbol for accessibility must be red. The effort required for a physically fit person to hike this trail is increasing over a blue or green trail.

Red – represents a trail with the highest degree of physical effort for a physically fit person and is a trail that has rugged terrain where the tread and surrounding land is uneven, there are greater than 25 five-meter (5m) ground contours per kilometer and the maximum longitudinal grade rise or fall is >1:8. Isolated areas of flat or rolling terrain must not be taken into consideration when assigning the trail to the red level of difficulty.

### Column 5 – Accessibility



To assign a level of preparedness, for a person with a disability, a green circle means the trail is fully AODA compliant.

A trail with a blue circle represents a trail where a person with a disability **may** require an able-bodied person to assist them as they traverse the trail, as the trail **is not** fully AODA compliant. The trail steward must describe on their website what elements of the trail do not comply with AODA and why assistance is required.

A trail with a black circle represents a trail where a person with a disability **must** have an able-bodied person with them to assist them as they traverse the trail, as the trail **is not** AODA compliant. The trail steward must describe on their website what elements of the trail do not comply with AODA and why assistance is required.

A red circle with a red slash through the symbols identifies a trail where a person with a disability **must not** use the trail even with an able-bodied person to assist them.

### Column 6 – Other Amenities

This column is optional but provides an opportunity for the trail steward to describe the amenities that are located along the trail such as rest areas, washroom facilities and whether the washroom is fully accessible, cell service availability and so on.



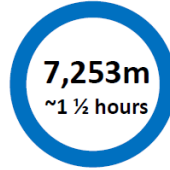


### Posting the Trailability Table



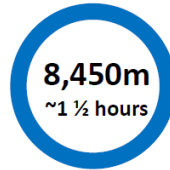


At the trailhead on the kiosk sign, the Trailability table, as shown on page 1, along with all provisions required by the user (i.e. nourishment, water, appropriate footwear, etc.) must be displayed in a prominent location. If there is no kiosk, the Trailability table and the provisions required must be posted as a standalone sign. At secondary entrances, the Trailability table and the provisions required should be posted as a standalone sign.






To save real estate on the kiosk or standalone sign, the trail steward could place a QR code on the sign, linked to the trail's website. The web page must include the Trailability table as shown on page 1 and all provisions required to ensure the trail user is prepared to embark on this trail.

## Multi-Loop Trails

On a trail with multiple loops where trailability changes for each loop, a Trailability table must be created for each loop and posted on the kiosk sign or standalone sign, as per the following example. If each loop has different requirements for provisions the list of provisions must accompany the Trailability table for that loop. To save real estate on the kiosk or standalone sign, the trail steward could place a QR code on the sign, linked to the trail's website, which would provide the provision requirements for each loop.

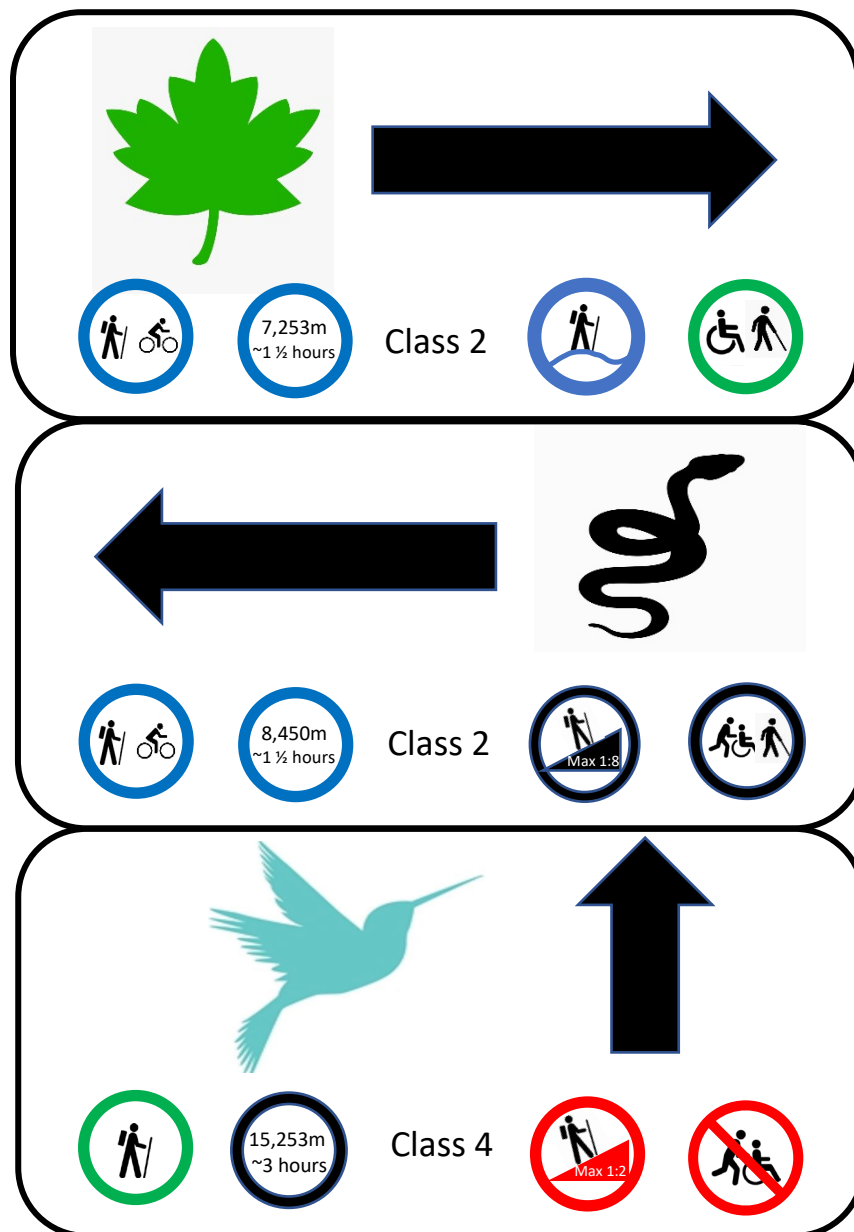
ABC Trail – Sugar Maple Loop 					
Trail Classification	Permitted Users	Trail Length	Trail Difficulty	Accessibility	Other Amenities
<b>Class 2</b>					Rest Area – Yes Washroom – Yes Cell Service – No

ABC Trail – Snake Loop 					
Trail Classification	Permitted Users	Trail Length	Trail Difficulty	Accessibility	Other Amenities
<b>Class 2</b>					Rest Area – Yes Washroom – Yes Cell Service – No

ABC Trail – Hummingbird Loop 					
Trail Classification	Permitted Users	Trail Length	Trail Difficulty	Accessibility	Other Amenities
<b>Class 4</b>					Rest Area – Yes Washroom – Yes Cell Service – No

## Wayfinding Multi-loop trails

On multiple loop trails where the Trailability changes from loop to loop, the trail steward must include on the wayfinding signage the Trailability symbols for each loop as per the example below. Doing so will ensure trail users do not embark on a loop for which they do not have sufficient provisions or where trail difficulty and/or accessibility are beyond their abilities. To standardize the wayfinding sign and for ease of use and to quickly receive information users require, at an intersection where multiple loop options are available (see below) the Trailability symbols on a wayfinding sign must be organized linearly from left to right along the bottom of the sign with the permitted uses on the left, length next, difficulty third and accessibility far right. Trail classification should be included between the length and difficulty symbols. NOTE: For clarity, if Trailability is the same for all loops there is no need to add Trailability symbols to the wayfinding sign.

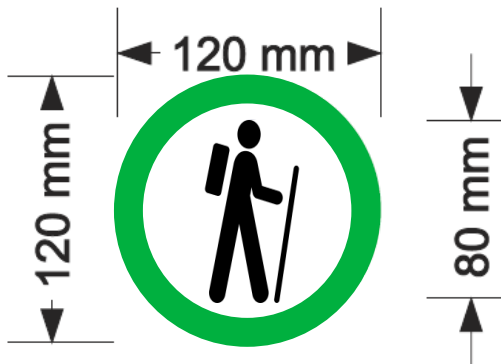


## Provisions Required

The purpose of this guideline is to prepare users for what type of trail they will be embarking upon. Part of that preparation will be knowing what provisions are needed, such as: hydration, nourishment, appropriate footwear, appropriate clothing, maps, GPS and so on. Trail stewards must comply with one of the two options for posting the provisions each trail user should have with them; Option 1 list the provisions on the kiosk or standalone sign or Option 2 post a QR code on the kiosk or standalone sign linked to the trail’s website page where this information would be posted.

## Trailability Colours, Symbol Size and Legibility

The circle size should be a minimum of 120mm in diameter with a width of a minimum of 15mm. If the circle contains a single symbol the symbol size is 80mm in height. Where more than one symbol is required and where one activity is the predominant activity the predominant activity symbol should be 60mm in height and for the other activities the symbol size should be reduced to 40mm. If there is no predominant activity all symbols should be 40mm in height. If the number of symbols makes the 120mm diameter circle too congested, the diameter of the circle can be increased. For the length of the trail, the characters must be of a height to be prominently displayed within the 120mm circle and the time, if included, should be ½ the height of the length characters. If Trailability symbols are used on wayfinding signage the symbol can be reduced to 25% of the size shown below.



Courtesy Cedar Signs

For consistency across for all trails, the colours, character and symbol sizes and dimensions of the circles must be as follows.

Trailability Colours					
	C	M	Y	K	Pantone
Green	100	0	64	31	354 C
Blue	64	54	0	22	2726C
Black	50	25	0	87	Black 6 C
Red	0	100	100	0	3546 C

Legibility means, the physical attributes of a sign that allow for differentiation of its letters, words, numbers, or symbols. At the trailhead, trail users will generally be reading the kiosk signage while standing at the sign. Guidelines include:

- for best legibility, a maximum reading distance of **6m** from the sign should be used
- the font used should be sans-serif such Helvetica, Century, or Clearview
- text in the body of the message must be a minimum of 10mm in height at the 6m reading distance.
- text should utilize both upper and lower case letters for best readability
- headers, titles, other important information may use a larger text height.
- use pictograms and symbols to replace text as much as possible.
- Be concise with your message, avoid too much verbiage

To be legible the following guideline is provided to determine message elements sizes.

Vehicular speed	—	—	—	0-15 km/h	20-30 km/h	35-40 km/h	45-60 km/h	65-75 km/h	80-90 km/h	95+ km/h
Pedestrian viewing distance	6 m	9 m	12 m	15 m	30 m	50 m	60 m	75 m	90 m	120 m
The unit “x”	10 mm	15 mm	20 mm	25 mm	50 mm	75 mm	100 mm	125 mm	150 mm	200+ mm
Arrow size (3x)	30 mm	45 mm	60 mm	75 mm	150 mm	225 mm	300 mm	375 mm	450 mm	600 mm
Character size (1x)	10 mm	15 mm	20 mm	25 mm	50 mm	75 mm	100 mm	125 mm	150 mm	200 mm
Symbol size (4x)	40 mm	60 mm	80 mm	100 mm	200 mm	300 mm	400 mm	500 mm	600 mm	800 mm
Symbol size (8x)	80 mm	120 mm	160 mm	200 mm	400 mm	600 mm	800 mm	1000 mm	1200 mm	1600 mm
Distance size (1x)	10 mm	15 mm	20 mm	25 mm	50 mm	75 mm	100 mm	125 mm	150 mm	200 mm

Source – Parks Canada Exterior Signage, Standards and Guidelines

## Acknowledgements

This document was created by the Ontario Trails Council (OTC) Technical Working Group with input by the OTC Risk and Liability Working Group.

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