



8.1 OVERVIEW

Signal operations can have a significant impact on the comfort and safety of pedestrians and cyclists. The Region presently utilizes a number of best practices in signal phasing for pedestrians and cyclists.

For information on signal operations related to pedestrians, please refer to the Region's current practices & guidelines.

Since the application of separated bikeways is growing across the Region, **the following sections focus on phasing, timing and detection considerations for separated cycling facilities.**

8.2 SIGNAL PHASING FOR SEPARATED CYCLING FACILITIES

The following section summarizes some best practices for signal phasing for separated cycling facilities. In some cases, signal phasing modifications will be considered to enhance separated cycling facilities. Considerations for the applications of protected and leading bicycle phases are summarized below.

Protected Bicycle Phase – A fully protected cycling phase allows cyclists dedicated time in a cycle while vehicular movements are held.

A fully protected phase may be considered in the following cases:

- **At locations with two-way or contraflow bicycle movements**
 - In instances with bi-directional separated cycling facilities, intersection movements are complex. Drivers turning left on two-way streets may be less likely to look for cyclists approaching from behind while they are focused on selecting a gap in traffic. In these cases, protected phases help to eliminate potential conflicts.
- **Locations with high volumes of cyclists, or with unique movements** – In some instances, the geometry of cycling facilities means that unusual or atypical movements are required through intersections. In these cases, or in cases with heavy cycling volumes, a protected phase can help to reduce cognitive demands of cyclists and drivers, as well as reducing frustration for drivers in trying to select a gap between cyclists