General

In Alberta, except where specifically prohibited, bicycles are permitted to share roads and streets with motorized vehicles.

Bicycle trails often cross highways, creating an opportunity for conflict between motorists and cyclists. Variation in the bicycle riders' experience and their slower operating speeds often contributes to vehicle-cyclist collisions. Most of these collisions occur in semi-urban or urban areas at the junctions of trails and highways.

Most commonly, a collision occurs when a cyclist is riding along a poorly marked bicycle trail or appears hidden and collides with a car approaching the trail from the left side.

A Bicycle Crossing Ahead sign placed along the highway in advance of such trail crossings helps to prevent collisions by warning drivers about frequent bicycle manoeuvres ahead.

Standard

A standard Bicycle Crossing Ahead sign consists of a black silhouette of a bicycle on a yellow background.

The standard size of a Bicycle Crossing Ahead sign is 600 mm x 600 mm.

Guidelines For Use

Bicycle crossings on expressways and multi-lane highways will not be allowed.

Bicycle crossings should also be discouraged on high volume, major two-lane highways (such locations should be evaluated on a case by case basis).

Preferably, bicycle crossings should be established on low volume, lower class highways.

The following specific criteria should be used when assessing the need for a Bicycle Crossing Ahead sign (all criteria should be met):

<table>
<thead>
<tr>
<th>WC-7</th>
<th>600 mm x 600 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>Symbol and Border</td>
</tr>
<tr>
<td>Sheeting</td>
<td>ASTM, Type III or IV</td>
</tr>
</tbody>
</table>
• a bicycle path/trail crosses a two-lane provincial highway and the trail is a designated bicycle route (i.e., as approved by a provincial or local authority)

• bicycle crossing manoeuvres are frequent and unexpected, and/or the physical conditions of the crossing present an unusual degree of hazard to motorists and cyclists (e.g., sight distance restriction along the highway)

• operation of the crossing is a safety concern, as indicated by collision history or stakeholder input.

Sign Review Process

Requests to install a Bicycle Crossing Ahead sign are usually initiated by stakeholders familiar with bicycle activities within the area. Such requests are submitted to Alberta Infrastructure and Transportation for review and approval.

During a review, a brief assessment is conducted of the operational, geometric, and environmental conditions of the crossing. Factors to consider during the assessment include:

• type of crossing (mid-block, intersection crossing)
• frequency of bicycle crossing manoeuvres
• main users of the crossing
• traffic volumes along the highway and the availability of gaps
• existing operational conditions of the trail approaches (this may involve checking if the trail approaches are properly marked and signed)
• safety problems as indicated by local police or stakeholder input.

When assessing the need for signing along a bicycle trail itself, one should consult the Transportation Association of Canada’s 1998 edition of the Bikeway Traffic Control Guidelines for Canada.

Guidelines for Placement

In rural or semi-urban areas, a Bicycle Crossing Ahead sign should be placed a distance of 300 to 350 metres in advance of the crossing. In urban areas where the vehicular speeds are lower, this distance should be within a range of 50 to 150 metres. Signs are normally provided for both directions of travel.

The Bicycle Crossing Ahead sign is installed on the right-hand side of the highway. On one-way roadways with visibility problems, an additional sign should be installed on the left side of the roadway.

Safety Issues

Physical conditions of the crossing should always be assessed to determine if any improvements are needed. Such improvements may include clearing obstacles within the sight triangle and improving the geometry of the trail approaches.

If site conditions are particularly severe, a bicycle crossing may need to be relocated to a location with better visibility.
### References to Standards

<table>
<thead>
<tr>
<th>Bikeway Traffic Control Guidelines for Canada</th>
<th>The entire guide is devoted to traffic control devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geometric Design Guide for Canadian Roads</td>
<td>Bikeways</td>
</tr>
<tr>
<td>Highway Geometric Design Guide, Section B.2</td>
<td>Sight Distance</td>
</tr>
</tbody>
</table>