

## GUARDRAIL INSTALLATION IN URBAN SETTINGS

Guardrail is not recommended where curb, or curb and gutter is used. Whenever it is necessary to provide guardrail along a curbed section (no sidewalk or sidewalk space) Standard GR-2 or GR-2A\* Strong Post Guardrail shall be used in conjunction with Standard CG-3 or CG-7 (0.1m mountable curb) and the face of the rail should be aligned with the face of curb. For design speeds 70 kph or less, use Standard GR-2. For design speeds greater than 70 kph, use Standard GR-2A. This decreases the possibility of an errant vehicle striking the curb before impacting the guardrail or snagging the guardrail posts and is applicable to all design speeds. Standard GR-8 Weak Post Guardrail shall not be used adjacent to any curb.

If the guardrail cannot be aligned with the face of the curb, then the maximum practical offset behind the guardrail should be provided. For low-speed roadways (70 km/h or less) the guardrail shall be offset a minimum of 1.8m behind the face of curb. For high-speed roadways (80 km/h or greater) the guardrail shall be offset a minimum of 3.3m behind the face of curb.

It is usually impractical to install guardrail between the roadway and a pedestrian route. When necessary to provide guardrail along a pedestrian route (at ponds, steep embankments, etc.) the guardrail should be placed 0.3m behind the sidewalk (or sidewalk space). In these situations, sound engineering judgment should be used in determining guardrail locations and evaluating needs when hazards exist outside the clear zone.

When a sidewalk or shared-use path transitions from the roadway onto a bridge, guardrail is required if the travelway and the sidewalk or shared-use path are separated by a barrier on the bridge. See detail in RDM, Appendix A, Section A-5 for shared-use paths and IIM-LD-55 for sidewalks.

## GUARDRAIL LOCATIONS ON FIELD INSPECTION PLANS

The approximate locations of barriers should be shown on Preliminary Field Inspection plans and discussed at the [Preliminary Field Inspection](#). If the locations are not shown, the type, terminals, and placement should be generally discussed. Maintenance of areas protected by barriers should also be discussed at this time.

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\* Rev.1/11