

Construction Zone Design Speed, V (km/h)	f_{max} for Open-Roadway Conditions	Normal Crown Section Minimum Radius, R_{min} (m), $e = -0.02$	Superelevated Section Minimum Radius, R_{min} (m), $e = +0.08$
30	0.17	50	30
40	0.17	85	55
50	0.16	145	85
60	0.15	220	125
70	0.14	325	180
80	0.14	420	230
90	0.13	580	305

Notes:

1. Curve Radius. The radius is calculated from the equation as follows:

$$R_{min} = \frac{V^2}{127(e + f_{max})};$$

value shown in the table for design has been rounded up to the next higher 5-m increment.

2. Normal-Crown Section. If the normal-crown section is maintained through the horizontal curve, the superelevation rate is -0.02 assuming a typical cross slope of 2%. Therefore, the R_{min} column with $e = -0.02$ lists the minimum radius which can be used if retaining the normal section through the horizontal curve.
3. Other Radius. For a proposed radius or superelevation rate intermediate between the table values, the equation in Note 1 may be used to determine the proper curvature layout. For example, if the construction-zone design speed is 100 km/h and the proposed curve radius is 500 m, the superelevation rate is determined as follows:

$$e = \frac{V^2}{127R} - f$$

$$e = \frac{(100)^2}{(127)(500)} - 0.12$$

$$e = +0.37$$

MINIMUM RADIUS FOR HORIZONTAL CURVE IN CONSTRUCTION ZONE

Figure 82-3A