



MaineDOT

ENGINEERING INSTRUCTION

Title: Horizontal Curve Radius

Number: C21

Discipline: General Engineering

Originator: Steve Bodge, P.E. Highway Program

Issue Date: October 13, 2016

Approved By: Bradford Foley, P.E.

Background:

Horizontal Curve Radius is one of the Controlling Criteria for roadway design. It addresses the horizontal curvature of an alignment. The minimum radius of a curve depends on design speed, and on the maximum superelevation rate, which is determined by the urban/rural nature of the roadway. Once these are identified, horizontal curves can be established. Superelevation of horizontal curves is related to Horizontal Curve Radius but is addressed by a separate Controlling Criterion.

Applicability:

This policy applies to all design projects.

Policy:

This policy outlines the Department's direction regarding Horizontal Curve Radius.

Horizontal curvature is defined by radius. The basic design criteria for horizontal curvature are based upon the information contained in Chapter 3 of the AASHTO publication *A Policy on Geometric Design of Highways and Streets* (the Green Book). The Department has adopted the following Green Book table for determining the minimum radius:

Minimum Radius Using Limiting Values of e and f

Additional guidance contained in the Green Book will be used to determine other horizontal alignment related requirements.

Responsibility:

Program Managers