

Although the selected design speed establishes the maximum degree of curvature and minimum sight distance necessary for safe operation, there should be no restriction on the use of flatter horizontal curves or greater sight distances where such improvements can be provided as a part of economic design. However, if a succession of flatter curves or tangent sections would encourage drivers to operate at higher speeds, that section of highway should be designed for a higher speed and all geometric features, particularly that of sight distance on crest vertical curves and intersection sight distance should be related to it.

The minimum Design Speed shall be based on the following criteria:

1) For roadways with a Posted Speed:

a) For high-speed roadways\* (Posted 50 mph and higher) the Design Speed shall be a minimum of 5 mph higher than the Posted Speed.

- Example - Design Speed 60 mph – Posted Speed 55 mph

b) For low-speed roadways (Posted 45 mph and less) the Design Speed shall be equal to or higher than the Posted Speed.

- Example - Design Speed 40 mph – Posted Speed 40 mph

2) For unposted roadways: Design Speed shall be equal to Statutory Speed or 85% percentile speed (based on speed analysis, rounded up to nearest 5 mph increment).

3) Roadways with ADT < 400, see the VDOT Road Design Manual, Appendix B(1), Tables 1 through 3 and AASHTO's "Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT ≤ 400)".

Posted Speed/Design Speed (All speeds in miles per hour-mph)		
	Posted	Min. Design
Low-Speed Roadways	20	20
	25	25
	30	30
	35	35
	40	40
	45	45
High-Speed Roadways	50	55
	55	60
	60	65
	65	70
	70	75

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\* Added 7/16