Begin and end project stations are to be flagged as shown in Chapter 2H, Figure 2H-35[*].

Flagging for both begin and end stations and elevations shall be shown for all connection grades, ramps grades, etc.

Splined (not mathematically computed) grades are to be used only where computed grades are not practical and are to be noted "Spline Grade" with elevations shown, to the nearest five hundredths of a foot (or more accurately, if available), from beginning to end at 25 feet intervals. Approximate percent of gradient is to be shown on each tangent line and approximate vertical sight distances are to be shown for each crest vertical curve. Approximate design speeds are to be shown in accordance with the information in Appendix A, Section A-1. For spline grades, these values are to be clearly marked "approximate".

SAG VERTICAL CURVES

Criteria for establishing lengths of sag vertical curves are (1) headlight sight distance, (2) rider comfort, (3) drainage control, and (4) a rule-of-thumb for general appearance. (See AASHTO's *A Policy on Geometric Design of Highways and Streets*, Chapter 3 for controls - applicable to both rural and urban projects).

CREST VERTICAL CURVES

Crest vertical curves are to be in accordance with Geometric Design Guidelines for the Functional Classification, traffic volumes and design speed of the road being designed.

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[*] Rev.1/15