Odd pluses shown for begin and end elevations for connection grades, ramp grades, etc., will preclude the need for flagging in these instances on plan and profile sheets.

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 (meter) (or more accurately, if available), from beginning to end at 25 feet (10 meter) 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 IIM LD-117. For splined grades, these values are to be clearly marked "approximate".

## **DESIGN EXCEPTIONS**

When plans are being prepared where, for any reason, one or more locations do not meet the AASHTO minimum design\* criteria for the stated design speed, the location(s) and reason for difference(s) are to be noted on the title sheet. In order to alert everyone concerned, it will be necessary to identify these locations from the earliest stages of plan development. If changes are made during plan development that would alter the situation, then the title sheet must be corrected to reflect the new design. Design exceptions shall have the approval of the State Location and Design Engineer on both State and Federally funded projects. For additional instructions on Design Exceptions, See IIM-LD-227.

The following methods will be used to show these exceptions:

a. Plans with Functional Classification block:

EXCEPTIONS TO MAINLINE DESIGN SPEED		
Sta. To Sta.	Design Speed (mph)	Reasons for Exception
102 + 75 to 104 + 75	50	Crest Vertical Curve
621 + 00 to 624 + 50	60	Horizontal Alignment

The data as indicated in the previous example is to be shown directly below the Functional Classification block.

## b. Plans Without Functional Classification block:

Exceptions should be noted inside the title sheet border lines immediately following the design speed classification as follows:

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<sup>\*</sup> Rev. 7/06