

Conflicts with utilities are to be avoided wherever practicable. See VDOT [Survey Manual](#), Chapter 8 for additional analysis information.

The Department's permit policy allows vehicles with excess heights to operate on our highways under an over-height permit. In view of this, 14'-0" has been accepted as the maximum allowable height to be provided for during construction, reconstruction, or maintenance operations. Every effort must be made to insure that a minimum vertical clearance of 14'-2" is provided on existing grade separation structures during construction, reconstruction, or maintenance. If temporary reduction in the vertical clearance below 14'-2" is unavoidable and is apparent in the design stage, the Permit Office is to be advised when the project is turned in to the Construction Division.

The following information is to be furnished so that permit holders can be notified:

- Route, County, and Mile Post
- Name of railroad or Route overpass
- Minimum overhead clearance prior to change
- Minimum overhead clearance after change

Date of change

Temporary or permanent

DEPICTING VERTICAL ALIGNMENT ON PLANS

Proposed grade lines are to be shown in a heavy solid line, except for dual lane highways, in which case one lane should be shown as a heavy dashed line. Both are to be clearly labeled.

Percent of gradient is to be shown on each tangent line.

Grades are to be designed in conformance with the Geometric Design Guidelines shown in [Appendix A](#) for the Functional Classification, traffic volumes and design speed of the road being designed. Also, see [Chapter 2A, Section 2A-6](#).

Finished grade elevations are to be shown in the bottom 1" of the profile sheet from beginning to end at prescribed intervals (50' for Rural, Primary and Interstates and 25' for Urban) and at transition points. (Transition points are to be computed and shown through the superelevation transitions of all horizontal curves for TS, SC, CS, ST, PC, PT and every 25' increment. Chord points are to be computed ($Lr/10$) and shown on projects with pavement widening **only**. For clarification of transition and chord points, see Road and Bridge Standards.) When showing the superelevation diagram on the profile sheet, station pluses, centerline elevations, edge of pavement elevations (left and right) and offset distances (left and right) through the transition are to be furnished. If projected grades are computed manually, the St'd. TC-5 Tables are used in computing transition point elevations. Finished grade elevations are also to be shown at change of grade points without vertical curves, at the beginning and end of each profile sheet, at the beginning and end of the project, beginning and end of bridges, at equalities, and equivalent stations.

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