

GEOMETRIC DESIGN STANDARDS FOR INTERSTATE SYSTEM (GS-INT)

| | TERRAIN | MINIMUM DESIGN SPEED (MPH) | MINIMUM RADIUS | (7) MINIMUM STOPPING SIGHT DISTANCE | MINIMUM WIDTH OF LANE | (1) MINIMUM WIDTH OF TOTAL SHOULDERS (GRADED + PAVED) (CUT & FILL) | | (2,3,4) MINIMUM PAVED SHOULDER WIDTH | | (5) MINIMUM WIDTH OF DITCH FRONT SLOPE | (6) SLOPE | NEW AND RECONSTRUCTED MINIMUM BRIDGE WIDTHS AND VERTICAL CLEARANCES |
|------------|--|----------------------------|----------------|-------------------------------------|-----------------------|--|------------|--------------------------------------|------|--|-----------|---|
| | | | | | | With GR | Without GR | LT. | RT. | | | |
| INTERSTATE | Rural Non-Mountainous (Level or Rolling) | 75 | 2215' | 820' | 12' | 16' | 12' | 4' ** | 10' | 12' @ 6:1 | CS-4B | See Footnote (8) |
| | | 70 | 1821' | 730' | | | | Min. | Min. | | | |
| | 50 | 760' | 425' | 4' ** | | | | 8' ** | | | | |
| | Urban | | | | | | | | | | | |
| | Rural Mountainous | | | | | 14' | 10' | Min. | Min. | | | |

GENERAL NOTES

Interstates - All new and major reconstructed Interstate facilities will have a posted +5 mph design speed unless concurrence from the State Location and Design Engineer is obtained.

Medians in urban or mountainous areas shall be wide enough to accommodate the left total shoulder width plus the space needed for a barrier. See Interstate Guide.

When barriers are provided right of traffic or in the median the total shoulder shall be paved.

Where curbs are provided, they shall not be closer to the traveled way than the outer edge of the paved shoulder, shall have a sloping face and be limited to the height of 4 inches (St'd CG-3). See Interstate Guide.

Maximum Grades

| Type of Terrain | Design Speed (mph) | | | | | | |
|-----------------|--------------------|----|----|----|----|----|----|
| | 50 | 55 | 60 | 65 | 70 | 75 | 80 |
| | *Grades (%) | | | | | | |
| Level | 4 | 4 | 3 | 3 | 3 | 3 | 3 |
| Rolling | 5 | 5 | 4 | 4 | 4 | 4 | 4 |
| Mountainous | 6 | 6 | 6 | 5 | 5 | - | - |

* Grades 1% Steeper than the value shown may be used in urban areas

FOOTNOTES

(1) Total shoulder widths include the paved portion and are applicable to the left and right shoulder.

Where truck traffic exceeds 250 DDHV, a wider total shoulder should be considered (14' without guardrail; 18' with guardrail).

(2) When the mainline is 6 or more lanes in rural non-mountainous or urban terrain, the left paved shoulder width shall be the same as the right paved shoulder.

** AASHTO Minimum, See Interstate Guide.

(3) When the mainline is 8 or more lanes in rural mountainous terrain, the median paved shoulder width shall be the same as the right paved shoulder.

** AASHTO Minimum, See Interstate Guide.

Where truck traffic exceeds 250 DDHV, additional shoulder width may be beneficial. Refer to AASHTO's Green Book Chapter 8 for more information.

(4) Additional guidance on shoulder widths for tunnels and long bridges [overall length over 200 ft] is provided in the AASHTO Interstate Guide.

(5) A hydraulic analysis is necessary to determine actual depth requirement.

(6) Additional or modified slope criteria to apply where shown on typical sections.

(7) For additional information on sight distance requirements on grades of 3 percent or greater, see Section 3.2.2, page 3-5, Tables 3-2 of the AASHTO Green Book.

(8) See [Manual of the Structure and Bridge Division – Volume V – Part 2 Design Aids – Chapter 6 Geometrics](#).

FIGURE A - 1 - INT*

* Added 1/19