|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Design**  **Element** | | **Manual**  **Section** | **Design Speed** | | | | | | | |
| 20 mph | 25 mph | 30 mph  **50 mph**  **55 mph**  **60 mph**  **65 mph**  305’  425’  495’ | 35 mph | 40 mph | 45 mph | 50 mph | 55 mph |
| \*Stopping Sight Distance **(1)** | | 10.1 | 115′ | 155′ | 200′ | 250′ | 305′ | 360′ | 425′ | 495′ |
| Passing Sight Distance | | 10.2 | 710′ | 900′ | 1090′ | 1280′ | 1470′ | 1625′ | 1835′ | 1985′ |
| Intersection Sight Distance **(2)** | | 10.4 | 225′ | 280′ | 335′ | 390′ | 445′ | 500′ | 555′ | 610′ |
| \*Minimum Radii | emax = 8% | 11.2.3 | - | - | - | - | - | - | - | 965′ |
| emax = 6% | 115′ | 185′ | 275′ | 380′ | 510′ | 660′ | 835’ | - |
| \*Superelevation Rate **(3)** | | 11.3 | 6% | 6% | 6% | 6% | 6% | 6% | 6% | 8% |
| \*Horizontal Sight Distance **(4)** | | 11.4 | 14.5′ | 16.0′ | 18.0′ | 20.5′ | 23.0′ | 24.5′ | 30.0′ | 32.0′ |
| \*Minimum Vertical Curvature (K-values) **(5)** | Crest | 12.5 | 7 | 12 | 19 | 29 | 44 | 61 | 84 | 114 |
| Sag | 17 | 26 | 37 | 49 | 64 | 79 | 96 | 115 |
| \*Maximum Grade | Level | 12.3.1 | 8% | 7% | 7% | 7% | 7% | 6% | 6% | 6% |
| Rolling | 11% | 11% | 10% | 10% | 9% | 8% | 7% | 7% |
| Mountainous | 16% | 15% | 14% | 13% | 12% | 10% | 10% | 10% |
| Minimum Grade **(6)** | | 12.3.2 | Des.: 0.5% Min.: 0.0% | | | | | | | |

\*Controlling design criteria (see Section 9.2).