|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Design**  **Element** | | **Manual**  **Section** | **Design Speed** | | | | | | |
| 30 mph | 35 mph | 40 mph  **50 mph**  **55 mph**  **60 mph**  **65 mph**  305’  425’  495’ | 45 mph | 50 mph | 55 mph | 60 mph |
| \*Stopping Sight Distance **(1)** | | 10.1 | 200′ | 250′ | 305′ | 360′ | 425′ | 495′ | 570′ |
| Passing Sight Distance | | 10.2 | 1090′ | 1280′ | 1470′ | 1625′ | 1835′ | 1985′ | 2135′ |
| Intersection Sight Distance **(2)** | | 10.4 | 335′ | 390′ | 445′ | 500′ | 555′ | 610′ | 665′ |
| \*Minimum Radii | emax = 8% | 11.2.3 | – | – | – | – | - | 965′ | 1205′ |
| emax = 6% | 275′ | 380′ | 510′ | 660′ | 835′ | – | – |
| \*Superelevation Rate **(3)** | | 11.3 | 6% | 6% | 6% | 6% | 6% | 8% | 8% |
| \*Horizontal Sight Distance **(4)** | | 11.4 | 18′ | 20′ | 23′ | 24′ | 27′ | 32′ | 34′ |
| \*Vertical Curvature (K-values) **(5)** | Crest | 12.5 | 19 | 29 | 44 | 61 | 84 | 114 | 151 |
| Sag | 37 | 49 | 64 | 79 | 96 | 115 | 136 |
| \*Maximum Grade **(6)** | Level | 12.3.1 | 7% | 7% | 7% | 7% | 6% | 6% | 5% |
| Rolling | 9% | 9% | 8% | 8% | 7% | 7% | 6% |
| Mountainous | 10% | 10% | 10% | 10% | 9% | 9% | 8% |
| Minimum Grade **(7)** | | 12.3.2 | 0.5% | | | | | | |