



## Design Memo No. 20-02

January 7, 2020

**TO:** All Design, Operations, and District Personnel, and Consultants

**FROM:** /s/ Elizabeth W. Phillips  
Elizabeth W. Phillips  
Director, Standards and Policy

**SUBJECT:** Ramp Maximum Grade

**REVISES:** IDM Section 48-5.04(01)

**EFFECTIVE:** Stage 3 submittal on or after January 7, 2020

The referenced *Indiana Design Manual* section has been revised to remove an inadvertent figure reference and add language regarding maximum ramp grades for high-speed system interchange ramps.

Revisions are included for reference below.

Questions regarding ramp grades should be directed to the Standards and Policy Division, Mark Orton, at [morton@indot.in.gov](mailto:morton@indot.in.gov).

### IDM Revisions

#### **48-5.04(01) Grades**

Maximum grades for vertical alignment on ramps cannot be as definitively expressed as those for highway mainline. General values of limiting gradients are 3% to 5% but, for any one ramp, the selected gradient is dependent upon a number of factors. These include the following:

...

5. The ramp grade within the freeway/ramp junction up to the physical nose should be approximately the same grade as that provided on the mainline. However, adequate sight distance is more important than grade control. [*Figure reference deleted*]
6. For high-speed system interchanges ramps, the maximum grade for both upgrades and downgrades should be limited to 4 percent. Grades steeper than 4% require concurrence from the Corridor Development Office.