

Deviation Mitigation Options For Designers

Design Criteria	Mitigation Measures Available	Comments
Horizontal Alignment	Post Warning Signs Post Speed Advisory Install Chevrons Flatten Roadside Slopes Improve Horizontal Sight Lines Improve Clear Zone Area Improve Superelevation Install Illumination Widen Shoulders/Pavement	Consistency of mitigation choices through significant lengths of corridors is encouraged in order to avoid confusing drivers.
Lane Width	Post Warning Signs or Speed Advisory Improve Delineation Install Raised Pavement Markings Restrict Vehicle Size If Appropriate Restrict Traffic If Appropriate	Permanent lanes on the interstate system must meet or exceed 11' minimum width to comply with FHWA criteria.
Shoulder Width	Flatten Roadside Slopes Improve Delineation Identify & Post Alternate Bicycle Route Consider Installing Rumble Strips Post Warning Signs Provide Occasional Turnouts	Consider routing pedestrians to use an alternate route.
Bridge Width	Post Warning Signs Improve Delineation Post Speed Advisory Upgrade Bridge Barriers Identify & Post Alternate Bicycle Route Restrict Vehicle Size If Appropriate Restrict Traffic If Appropriate	Consider routing pedestrians to use an alternate route. Bridge Office input is encouraged.
Structural Capacity	Post Warning Signs Post Load Limit Signs Restrict Vehicle Size If Appropriate Restrict Traffic If Appropriate Identify & Post Alternate Route	Bridge Office input is mandatory.
Stopping Sight Distance	Remove Obstructions Post Advisory Speed Post Warning Signs Consider Installing Illumination Relocate Intersections/Access Points Improve Horizontal Sight Lines Install Advance Flashing Warnings Widen Shoulders/Pavement Flatten Roadside Slopes	Illumination is not typically effective as mitigation in crest vertical curve situations. Posting "reduced sight distance" signs is not effective. If warning signs are placed, the hazard that is hidden should be identified, narrow bridge or intersection ahead for example.

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Intersection Sight Distance	Post Warning Signs Post Advisory Speed Install Illumination Improve Sight Triangle Lines Relocate Intersections/Access Points Improve Clear Zone Area Install Flashing Warnings	
Grade	Post Warning Signs Consider Truck Climbing Lane Consider Passing Lane Install Full Depth & Width Shoulders Consider Truck Escape Ramp Install Brake Check Area At Summit	See Design Manual Sections 440, 630 and 1010.
Cross Slope	Improve Crown/Superelevation Improve Drainage Consider Guardrail Installation	Water ponding and winter conditions (snow & ice) should be considered in cross slope decisions.
Superelevation	Post Warning Signs Post Speed Advisory Improve Horizontal Sight Lines Improve Clear Zone Area Improve Roadside Slopes Widen Shoulders/Pavement	Winter conditions should be considered in superelevation decisions.
Vertical Clearance	Post Warning Signs Restrict Vehicle Size If Appropriate Restrict Traffic If Appropriate Mill Pavement Under Structure Identify & Sign Alternate Route	Existing pavement section depth determines the feasibility of milling to increase clearance, consult materials engineer.
Horizontal Clearance	Post Warning Signs Improve Delineation Identify & Sign Alternate Route Remove or Relocate Obstructions Consider Barrier Installation	
Weave Distance	Install C/D Lane Install Auxiliary Lane Extend Weave Distance Change Weave Type/Off Connection	
Taper Length	Post Warning Signs Use Parallel On/Off Merges	
Accel/Decel Lanes	Use Parallel On/Off Merges Post Warning Signs Improve Delineation Widen Shoulders/Pavement	