

**WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
DESIGN DIRECTIVE**

622

INTERSECTIONS ON RURAL DIVIDED HIGHWAYS

February 1, 2006

Attached is the West Virginia Department of Transportation, Division of Highways' Intersections on Rural Divided Highways guide. It shall be used on all applicable projects.

Attachment

INTERSECTIONS ON RURAL DIVIDED HIGHWAYS

Turn lanes are to be provided for intersections on rural divided highways in accordance with the attached drawing and the requirements as listed below. All references to pages, tables and exhibits herein are contained in "*A Policy on Geometric Design of Highways and Streets, 2004*" published by AASHTO.

LEFT TURNS

Left-turn lanes are to be provided on all rural divided highways. Where the design hourly volume (DHV) for the turn from the through roadway is equal to or greater than 30, a taper, a deceleration lane, and a storage bay (minimum 100 feet long) shall be provided.

RIGHT TURNS

Where the DHV is less than 30, an appropriate turning radius will be provided.

Where the DHV from the through roadway is equal to or greater than 30 and less than 100 a right-turn taper shall be provided. An appropriate turning radius will be provided at the end of the taper.

When the DHV turning right is 100 or greater and/or the DHV on through lanes in one direction is 500 or greater, a deceleration lane and taper will be provided.

In certain situations where right-turn traffic movement delays cause problems with through traffic, a storage length (min 100 feet) must be considered.

MEDIAN CROSSOVERS

A four lane rural facility should have adequate median width to provide for protected left turns.

Where a median crossover is provided along a superelevated multi-lane highway with a median less than 18 feet wide and without provisions for a storage lane, the profile grade shall be carried in the center of the median.

Where a median crossover is provided along a superelevated multi-lane highway with a median of 18 feet or more and/or where a storage lane is provided, separate profile grades shall be carried for each set of lanes. A differential in grade lines shall be used where required to provide a smooth median crossover grade, with the desirable grade being 2 percent toward the low side.

See Exhibit 9-87 "Above Minimum Design of Median Openings", page 704 of the 2004 AASHTO "A Policy on Geometric Design of Highways and Streets"

WV DOH uses a control radius of 75 feet for the design of median openings.

INTERSECTION DETAILS

Special details are required for all intersections. The pavement and shoulders shall be contoured to assure that superelevation, drainage, aesthetics, safety features and other aspects of the design have been properly considered. Pavement elevations will be indicated at 10 foot intervals around the returns and on the centerline of the side roads.

