

- The minimum design speed where the ramps meet the crossroad shall be 25 mph (every attempt is to be made to use a design speed greater than minimum).
- Turning radii used at the crossover junction are typically in the 150 to 400 ft range and shall be determined by design vehicle.
- Curb and gutter design is preferred along the crossing roadway.
- The appropriate GS standard shall be used based on the functional classification of the crossing roadway.
- Standard MS-1 is preferred along the cross road due to less maintenance requirements.
- Lane width through the crossover shall be a minimum of 15 ft.
- Design shall\* accommodate WB-67 trucks so that one truck in each lane of the design can make the required movements without encroaching into the adjacent lane (if there is one). Autoturn® should be run to determine the off-tracking of the design vehicles and lane width should be adjusted upward to accommodate. Please see 2011 AASHTO Green book Tables 3-26b and 3-27.
- For channelization and safety reasons, a physical barrier should be provided between the crossovers to separate opposing directions of traffic. Either a barrier or a raised median shall be designed to physically separate opposing traffic between the crossovers.
- Adequate lighting should be provided. VDOT requires all roadway lighting designs to meet the lighting criteria as discussed in the current IESNA publication, Recommended Practices for Roadway Lighting (RP-8). See VDOT's [Traffic Engineering Design Manual](#), Chapter 2 for more information.
- DDI interchange designs may only be appropriate where there are high-turning volumes.
- Median width is increased to allow for the flaring required for reverse curves on the interchange approaches.
- The noses of the median islands should extend beyond the off-ramp terminals to improve channelization and prevent erroneous maneuvers.
- Median openings may be placed upstream of the interchange to allow U-turn movements on the minor roadway. There will be no U-turns allowed within the DDI functional area.
- Left- and right-turn lanes should not be shared and should be designed assuming that they will run under separate signal phases.

\* Rev. 7/16