



FIGURE 2-19 SHOULDER DESIGN FOR DDI

Sight Distance

Two areas of specific importance to a DDI are sight distance for vehicles making crossover movements and vehicles exiting from the major roadway. The driver of a vehicle approaching or departing from an intersection should have an unobstructed view of the intersection, including any traffic control devices, and sufficient length along the cross route to permit the driver to anticipate and avoid potential collisions. The same sight distance principles, as described in the AASHTO Green Book, should be followed when designing a DDI.

Particular attention should be paid to the sight lines of vehicles turning from an exit ramp under yield control; this is true for either single- or multiple-turn lanes. For the driver making a right turn from the exit ramp of a DDI, their expectation is that traffic will be moving from the nearest lanes on their left. However, the traffic is actually approaching from the far left lanes since the direction of traffic is switched, as shown in Figure 2-20.

If there is room, a possible way to minimize this issue is by moving the right turn further from the crossover to increase the amount of sight distance available to these right-turners as well as give them more time to realize where oncoming traffic is coming from. The approach angle should be such that drivers in the turning lane should be able to see the oncoming traffic without difficulty for yield control condition.

For a signal controlled condition, sight triangles between the left turns and right turns to and from the ramps should not be large. This means the island between the left and right turn lanes from the ramp should be designed accordingly.* Smaller sight triangles will also shorten all the red times to clear traffic leaving the crossover intersections and also clear the next conflict point.

* Rev. 7/16