



Traffic Signal Design Manual

ORIGINATOR Director, Bureau of Highway Operations		3-3-4
CHAPTER 3	Project Scoping Process & Geometric Design Considerations	
SECTION 3	Intersection Geometrics	
SUBJECT 4	Design Vehicle and Turning Templates	

THIS SECTION OFFERS INTERIM GUIDANCE ONLY

The design vehicle used to determine intersection geometrics at locations that *may* be signalized **shall** be at least a WB-62. If the area being designed is known to have WB-65 or WB-67s, then that design vehicle should be used. Using the appropriate sized design vehicle has significant impacts on intersection operation and signal efficiency.

Intersections *should* be designed to accommodate WB-62's . Movements *should* allow for the vehicles to turn with a smooth continuous radius. Opposing left turns need a minimum of 3' clearance at the center of the intersection as they pass each other.

Dual lefts are designed for the truck (WB-62) using the outside lane a single unit using the lane. There *should* be a minimum of 3' between the vehicles as they turn with each other. Refer to Figure 1 for clarification on outside and inside lane terminology for dual left turn lanes.

Dual rights are designed for the truck (WB-62) using the outside lane and a single unit using the inside lane. There *should* be a minimum of 3' between the vehicles as they turn with each other.

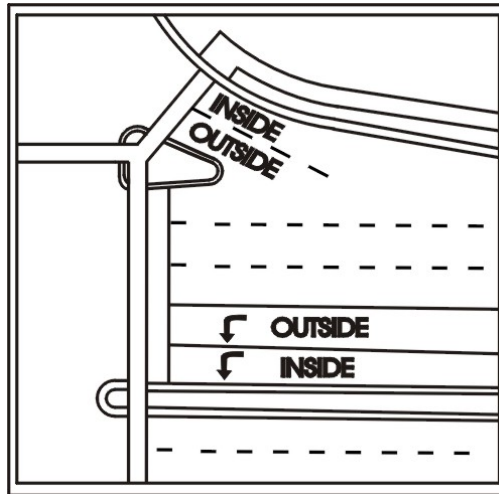


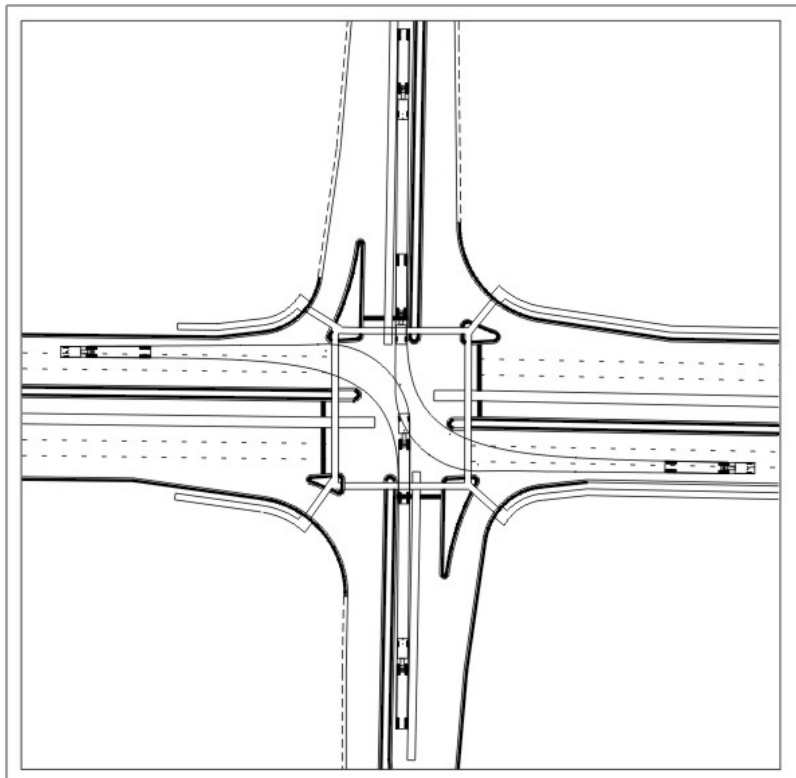
Figure 1. Outside and Inside Lanes for Left and Right dual turn lanes.

Left turning trucks *should not* encroach on the left turn lane for the approach that they are entering when making their left turn. Trucks need not be restricted to the nearest lane when making a turn. Trucks *may* encroach into other lanes on multiple lane roadways (not across the centerline for trucks making a right turn movement, in this case the stop line *may* be pulled back). Parking *may* need to be restricted at intersections to aid in truck turning movements.



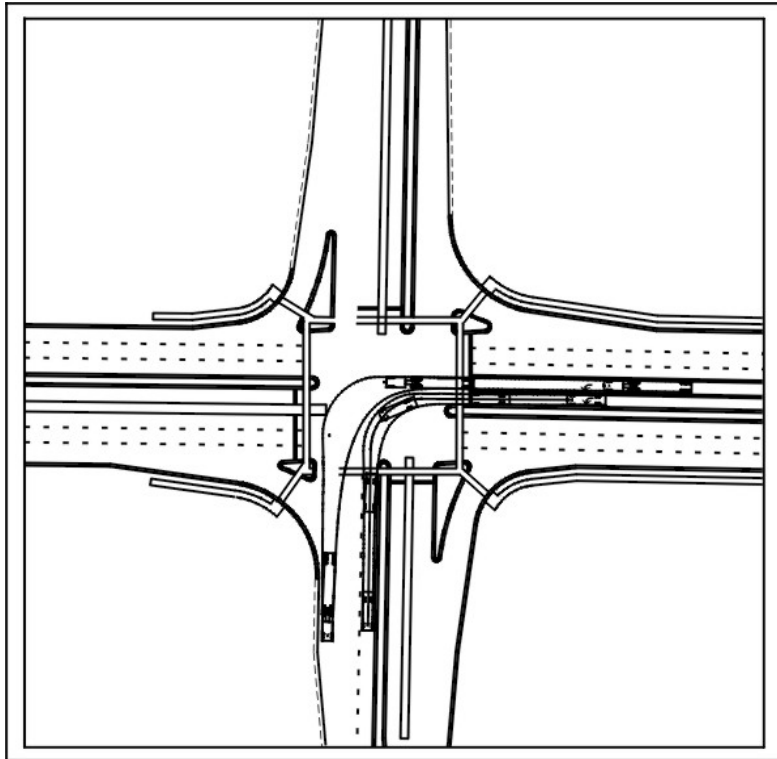
CORRECT

Opposing WB-62's Clear Each Other



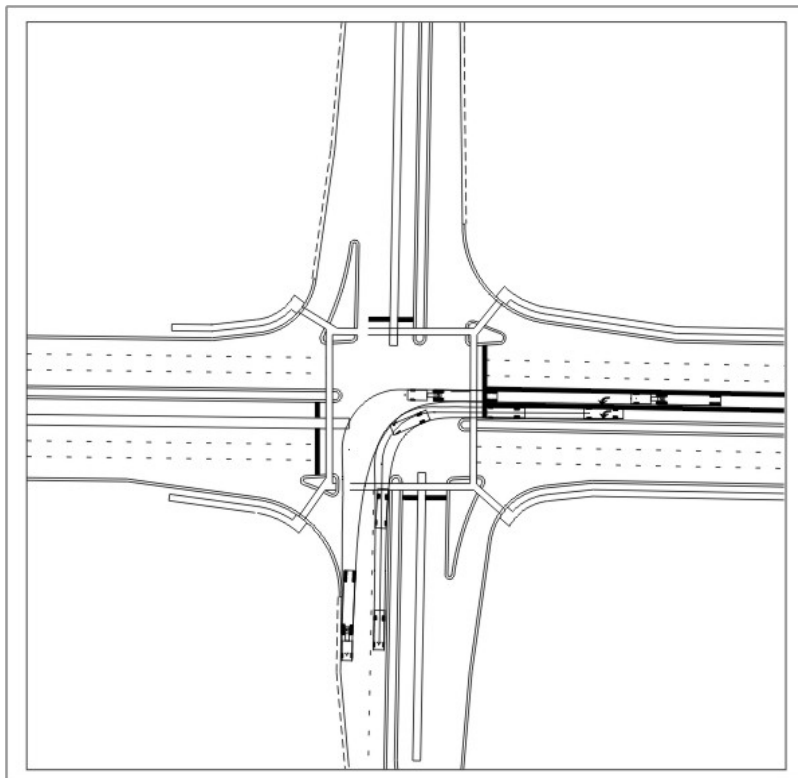
INCORRECT

Opposing WB-62s Conflict in the Intersection



CORRECT

WB-62 & Single Unit Vehicle Can Turn Together



INCORRECT

WB-62 & Single Unit Vehicle Cannot Turn Together