INNOVATIVE INTERSECTIONS

Displaced Left Turn (DLT)

What are innovative intersections?
Intersection designs where traffic movements are modified to improve safety, reduce delay, and increase efficiency.

Visit www.virginiadot.org/innovativeintersections to learn more.

State Route 741 (N Springboro Pike) at Austin Boulevard, Miamisburg, OH

What is a DLT?
- Intersection design where left-turn vehicles cross to the other side of the opposing through traffic in advance of the main intersection
- Protected left turns and opposing through movements occur simultaneously at the main intersection
- Intersection can be designed as a partial DLT, with crossovers for left turns only on the major street, or a full DLT, with crossovers for left turns on both the major and side streets
- Main intersection and crossovers are signalized and timed to work together to minimize stops

When should a DLT be considered?
- At intersections with moderate to heavy traffic volumes in all directions
- At intersections where opposing legs have similar through traffic volumes
- At intersections with heavy left-turn traffic volumes
- At intersections with a limited number of driveways or access points near the intersection

What are the benefits of a DLT?
- Improved safety: Reduces and spreads out the number of points where vehicles may cross paths
- Increased efficiency: Simultaneous movement of protected left turns and opposing through movements allows for only two traffic signal phases rather than the typical four phases, which reduces delay
- Better synchronization: Elimination of left-turn traffic signal phases and synchronization of the main intersection and crossover traffic signals allows through traffic to spend less time stopped, which improves corridor travel times

A DLT IS ALSO KNOWN AS:
- Continuous Flow Intersection (CFI)
- Crossover Displaced Left (XDL) Intersection

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What are innovative intersections?
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Pedestrians use marked crosswalks to safely cross the intersection.

After crossing the main intersection, major street traffic crosses minor street left-turn traffic at a signalized crossover.

From the major street, continue straight and turn right like at a conventional intersection.

To make a left turn from the major street, cross to the opposite side of the street at a signalized crossover before reaching the main intersection.

After turning left at the main intersection, side street traffic crosses major street left-turn traffic at a signalized crossover.

Depending on their level of comfort, cyclists may navigate the intersection using vehicle or pedestrian paths.

From the side street, navigate the intersection like at a conventional intersection.

Note: For simplicity, only two directions of traffic are shown. Opposing traffic follows similar routes.

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