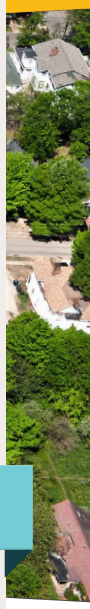
Alternative Intersections

Alternative intersection designs provide unconventional ways to accommodate left-turning movements.

TSMO
MARYLAND TRANSPORTATION SYSTEMS MANAGEMENT & OPERATIONS



HOW WILL THIS HELP?

- Reduce delay by simplifying signal timing and shortening cycle lengths
- Reduce the number of conflict points at an intersection to increase safety reduces the adverse effect of merging vehicles on mainline traffic.

HOW DOES IT WORK?

- Alternative intersection designs to consider include:
  - + MODERN ROUNDABOUT
  - + MARYLAND J-TURN INTERSECTION
  - + JUGHANDLE INTERSECTION
  - + CONTINUOUS GREEN T-INTERSECTION
  - + MARYLAND T-INTERSECTION
  - + CONTINUOUS FLOW INTERSECTION
  - + SUPERSTREET INTERSECTION
- Implementation of alternative intersections starts in transportation planning with a feasibility study
- Education of road users about relatively uncommon traffic patterns.

CONSIDERATIONS

+ ADDITIONAL RIGHT-OF-WAY IS TYPICAL FOR ALTERNATIVE INTERSECTIONS. A FEASIBILITY STUDY SHOULD CONFIRM THAT THE DESIGN MEETS BOTH OPERATIONAL OBJECTIVES AND RIGHT-OF-WAY CONSTRAINTS.
+ SIGNAL TIMING COORDINATION IS ESSENTIAL FOR SOME ALTERNATIVE INTERSECTION DESIGNS.

TRANSPORTATION NEEDS ADDRESSED

- Capacity and Demand
- Safety
- Reliability
- Access

COST MAGNITUDE

Capital Cost	$$
Operation and Maintenance Cost	$

WHEN TO CONSIDER THIS STRATEGY

- Congested arterial intersections with high left-turn volumes
- Arterial intersections with high left-turn crash rates
- Arterial corridors where grade separation is not feasible

COMPLIMENTARY STRATEGIES

- Access Management
- Channelization & Delineation
- Minor Roadway Improvements
- Traffic Signal Coordination
- Safety Countermeasures

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION