CONFLICT POINTS
ACCESS MANAGEMENT

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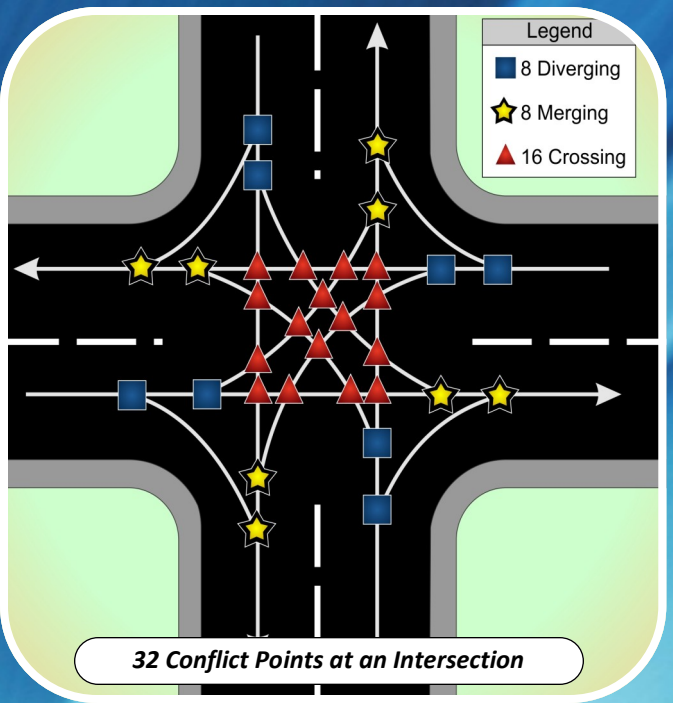
Conflict Point: The point at which a roadway user can cross, merge, diverge, etc. with another roadway user.

Drivers make more mistakes and are more likely to have collisions when they are presented with complex driving situations created by numerous conflicts. Simplifying the driving task results in fewer collisions, improves safety, and reduces congestion. A less complex driving environment is accomplished by limiting the number and type of conflicts between vehicles. There are 48 additional conflict points at intersections when considering pedestrian-vehicle and bicycle-vehicle conflicts.



32 Conflict Points at an Intersection

DRIVEWAY LEFT-TURN CONFLICT POINTS

Approximately 72% of the crashes at a driveway within the physical area of an intersection involve a left-turning vehicle. Of these left-turn crashes, 47% are attributed to the egress (exiting) movement conflicting with the near-side through movement, approximately 39% are attributed to the ingress (entering) movement, and 14% are attributed to the egress movement merging with the far-side through movement. This indicates that reducing or eliminating left turns to or from driveways where possible, enhances safety.

Source - "Access Management", Issue Briefs No. 13, FHWA, 2009.

More than two-thirds of all access related collisions involve left-turning vehicles.

Source - "Traffic Engineering", Vol. 37, No. 3, Dec. 1966

SEPARATE CONFLICT AREAS

Drivers need sufficient time to address one potential conflict before facing another conflict. As travel speed increases, the space needed between conflict areas also increases. Separating conflict areas helps to simplify the driving task and contributes to improved traffic operations and safety.

Source - "Access Management Manual", TRB, 2003.

Numerous studies over the past 40 years have shown accident rates rise with greater frequency of driveways and intersections. Accident rates on a roadway will increase by approximately 4% for every additional access point over 10 access points, per mile.

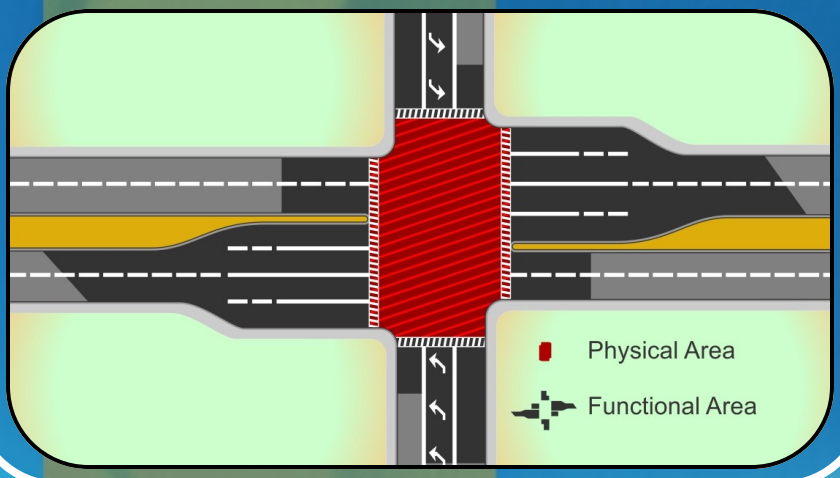
Source - Transportation Research Board, NCHRP Report 420, Impacts of Access Management Techniques, 1999.

Pedestrian-Vehicle conflicts are an issue of safety and inhibit traffic flow

FUNCTIONAL AREA OF AN INTERSECTION

The functional area of an intersection is the area where motorists are responding to the intersection or interchange, decelerating, and maneuvering into the appropriate lane to stop or complete a turn. The functional area of an intersection extends significantly past the physical area of an intersection or interchange and includes all areas that are critical to its function.

Source - "Access Management Manual", TRB, 2003.



U-TURNS REDUCE CONFLICTS AND IMPROVE SAFETY

U-Turns result in a 20% accident rate reduction by eliminating direct left turns from driveways and a 35% reduction when the U-turns are signalized.

Source - "NCHRP Report 420, Impacts of Access Management Techniques", TRB, 1999.

EFFECT OF ACCESS POINTS ON TRAFFIC SPEED

One study in Florida showed that the poor design, location, and spacing of driveways reduced average vehicular speeds by up to 10 mph.

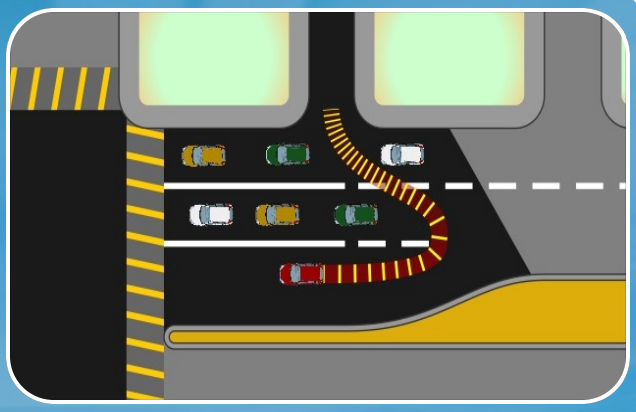
Source - "Access Management and the Relation to Highway Capacity and Level of Service. FDOT, 1996.

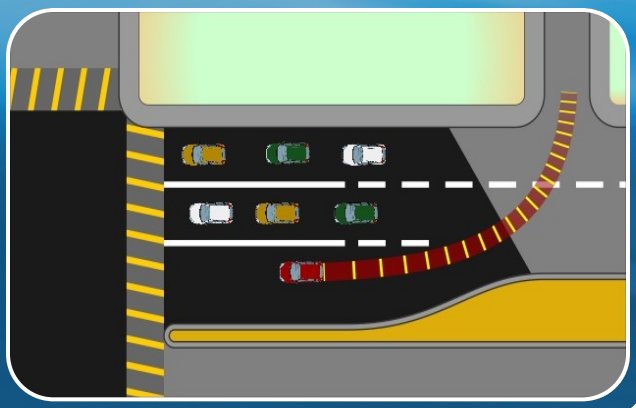
KEEP ACCESS CONFLICT POINTS OUT OF AN INTERSECTION

Poorly managed access in the functional area of an intersection can result in traffic-operation, safety, and capacity problems. These problems can be caused by blocked driveway ingress and egress movements, conflicting and confusing turns at intersections, insufficient weaving distances, and backups from far-side driveways into intersections. Specific operational and safety problems include:

- Through traffic is blocked by vehicles waiting to turn into a driveway.
- Right or left turns into or out of a driveway are blocked (both on arterial and crossroad) .
- Driveway traffic is unable to enter left-turn lanes.
- The weaving maneuvers for vehicles turning onto an arterial and then immediately turning left into a driveway are too short.

Source - "NCHRP Report 420, Impacts of Access Management Techniques", TRB, 1999.





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