Corridor Access Management

Access management is a set of techniques that State and local governments use to control access to highways, major arterials, and other roadways. The benefits of access management include improved movement of traffic, reduced crashes, and fewer vehicle conflicts. Access management principles are applicable to roadways of all types, ranging from fully access-controlled facilities, such as freeways, to those with little or no access control, such as local streets. Successful access management, managed by change in access density, seeks to simultaneously enhance safety, preserve capacity, and provide for pedestrian and bicycle needs.

Background

Every at-grade intersection, from a busy signalized intersection to a simple unpaved driveway, has the potential for conflicts between motorized vehicles, pedestrians, and bicycles. In general, the number and types of conflict points (i.e., the number of locations where the travel paths of two different users may cross) influence the safety performance of the intersection or driveway. Analysis of access-related crashes has revealed that driveways and minor uncontrolled intersections can be especially dangerous locations for pedestrians and bicyclists.

Access management refers to the design, implementation, and control of entry and exit points along a roadway. This includes intersections with other roads and driveways that serve adjacent properties. These entry and exit points can be managed by carefully planning their location, complexity, extent (i.e., types of turning movements allowed), and if appropriate, use of medians or other schemes that facilitate or prohibit access to the roadway. Developing and implementing effective access management strategies that improve safety requires considering the location of driveways in the context of current and future access and intersection operation needs and mobility for pedestrians and bicyclists. Per the Highway Safety Manual, areas where effective access management has been implemented have experienced:

- A 5-23 percent reduction in all crashes along two- lane rural highways, and
- A 25-31 percent reduction in severe (injury/fatal) crashes along urban/suburban arterials.

Guidance

Access management techniques are designed to manage the frequency and magnitude of conflict points at intersections and driveways by altering access patterns. Several of the more common access management treatments include:

- Driveway closure, consolidation, or relocation,
- Restricted-movement designs for driveways (such as right-in/right-out only),
- Restricted-movement and alternative designs for intersections (such as J-turns, median U-turns and quadrant roadways),
- Raised medians that prevent cross-roadway movements and focus turns and/or U-turns to key intersections,
- Adding auxiliary turn lanes (including exclusive left or right and two-way left),
- Constructing parallel, lower speed one-way or two-way frontage roads for access, and
- Using roundabouts or mini roundabouts to provided needed or desired access.

A corridor access management approach involves seeking an appropriate balance between the safety and mobility of a roadway facility with the access needs of adjacent land uses. Access management should be considered as part of any Federally-funded highway project that involves new construction or reconstruction, as well as on major rehabilitation or roadway widening projects, especially facilities with moderate to heavy daily traffic volumes.

Key Resources

Access Management in the Vicinity of Intersections Technical Summary
http://safety.fhwa.dot.gov/intersection/resources/fhwasa10002/
Access Management Principles
http://ops.fhwa.dot.gov/access_mgmt/presentations/am_principles_intro/index.htm
Alternative Intersections/Interchanges Resources
http://safety.fhwa.dot.gov/intersection/alter_design/#resources
"Safe Access is Good for Business" Brochure
http://ops.fhwa.dot.gov/publications/amprimer/access_mgmt_primer.htm
Transportation Research Board Access Management Website
http://www.accessmanagement.info/
Guidebook for Incorporating Access Management in Transportation Planning (NCHRP Report 548)
http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_548.pdf
Highway Safety Manual, American Association of State Highway and Transportation Officials
http://www.highwaysafetymanual.org/Pages/default.aspx
Crash Modification Factor (CMF) Clearinghouse [*quick search* "access management"]
http://www.cmfclearinghouse.org/

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FHWA Intersection Safety Website: http://safety.fhwa.dot.gov/intersection/
FHWA Access Management Website: http://ops.fhwa.dot.gov/access_mgmt/index.htm