

UNSIGNALIZED INTERSECTION SAFETY STRATEGIES



Implement Driveway Closures/Relocations

WHERE TO USE

Unsignalized intersections with high crash frequencies related to driveways adjacent to the intersection. Generally, driveways within 250 feet of the intersection are the greatest concern.



Photo by: Texas Transportation Institute

While this photo depicts driveways closed by guardrail, permanent curb and gutter is the preferred countermeasure design.

DETAILS

Effective access management is key to improving safety at and adjacent to unsignalized intersections. Highway agencies are increasingly using access management techniques on urban and suburban arterials.

A key element of access management is closure or relocation of driveways adjacent to intersections. Access points within 250 feet upstream and downstream of an intersection are generally undesirable. Strategies for mitigating safety problems that may arise from a driveway located too close to an unsignalized intersection are to close the driveway (if other access to the adjacent property already exists) or to relocate the driveway (if no other appropriate access is available). It is desirable to relocate access points from the major road to the minor road (away from the intersection), or (where practical) to another street or frontage road. Where there is access from the minor road, a side street, or a frontage road, relocating the driveway to the major road farther from the intersection may be considered.

KEY TO SUCCESS

Agencies should work with owners of adjacent properties to assure them that some restriction of access to their properties will improve safety and will not affect their ability (or, in the case of a retail business, their customers' ability) to reach their properties. Where practical, these strategies should be implemented as part of a comprehensive corridor access management plan.



ISSUES

Access restrictions could cause some owners of retail businesses to lose (or to think they will lose) customers. This is highly dependent on the type of business and the nature of the access restriction. Such impacts need to be carefully considered by highway agencies before implementing this strategy. It is advisable to involve stakeholders at the early stages of planning for these improvements.

TIME FRAME ●●○

Implementation of driveway closures and relocations can require 3 months to 3 years. While an extensive project development process usually is not required, discussions with affected property owners must be carried out to reach agreement on access provisions. Essential aspects of such an agreement may include driveway permits, easements, and driveway-sharing agreements. Where agreement cannot be reached, the highway agency may choose to initiate legal proceedings to modify access rights; such contested solutions are undesirable and require considerable time to resolve.

COSTS ●●○○

Costs are highly variable. These costs mostly involve acquiring access or constructing replacement access.

EFFECTIVENESS

TRIED: The strategy of closing or relocating driveways adjacent to intersections is considered effective and has been addressed in published literature, but there is no consensus on quantitative estimates of its effectiveness. The safety effectiveness of this strategy is highly site dependent and will vary with the driveway location relative to the intersection before and after the project, the traffic volume using the driveway, the traffic volume and speed on the relevant intersection approaches, and the type of development served by the driveway. Some of the states that have implemented access management policies include: Iowa, Minnesota, and Florida.

COMPATIBILITY

This strategy can be used in conjunction with most other strategies for improving safety at unsignalized intersections and, in particular, those strategies discussed in A2 (Driveway Turn Restrictions).

SUPPLEMENTAL INFORMATION

Highway agencies should establish formal access management policies to guide the planning and permitting process and to provide a basis for remedial treatments at existing locations where driveway-related safety problems occur. For more information on access management, visit: www.accessmanagement.gov.

For more details on this and other countermeasures: <http://safety.transportation.org>

For more information contact:

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