

UNSIGNALIZED INTERSECTION SAFETY STRATEGIES



Install Splitter Islands on the Minor-Road Approach to an Intersection

WHERE TO USE

Minor road approaches to unsignalized intersections where the presence of the intersection or the stop sign is not readily visible to approaching motorists. The strategy is particularly appropriate for intersections where the speeds on the minor road are high.



Photo by: FHWA

DETAILS

Many unsignalized intersections are not visible to approaching drivers. Thus, intersection crashes may occur because one or more drivers may be unaware of the intersection. “Splitter” islands can be installed on minor road approaches to call attention to the presence of the intersection and to guide traffic through the intersection. A splitter island refers to a channelizing island that separates traffic in opposing directions of travel, as opposed to islands that separate merging or diverging traffic in the same direction of travel. Splitter islands are particularly appropriate on approaches to skewed intersections.

KEY TO SUCCESS

Designing the island in accordance with the principles of channelization presented in the *AASHTO Policy on Geometric Design of Highways and Streets* and *NCHRP Report 279: Intersection Channelization Design Guide*. The visibility of the splitter island will, in part, depend on its placement relative to the profile of the major road.



ISSUES

There is a potential for the safety effectiveness of splitter islands to be negated if the shoulder is used in place of widening the roadbed to accomplish the channelization. Raised islands on a minor street could also become a safety hazard along a high-speed major roadway if not designed and delineated properly.

TIME FRAME ●●○

Intersection improvements involving splitter islands generally take approximately 1 to 2 years to design and construct. Significant channelization may require minor right-of-way acquisition, which could further increase implementation time.

COSTS ●●○○

Costs involved in implementing splitter islands are moderate, unless acquisition of additional right-of-way is required, in which case costs may be higher.

EFFECTIVENESS

TRIED: Splitter islands are generally perceived to be effective in defining the presence of an intersection. When properly applied, they may reduce traffic speeds and intersection crashes, but there is no consensus on their effectiveness.

An Australian study concluded that installing splitter islands on minor road approaches can reduce injury crashes by 35% at rural locations and by 40% at urban locations.

COMPATIBILITY

This strategy can be used in conjunction with most other strategies for improving safety at unsignalized intersections.

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

For more information contact:

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