

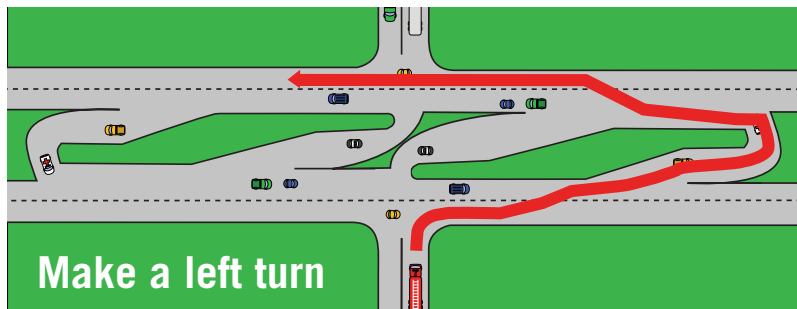
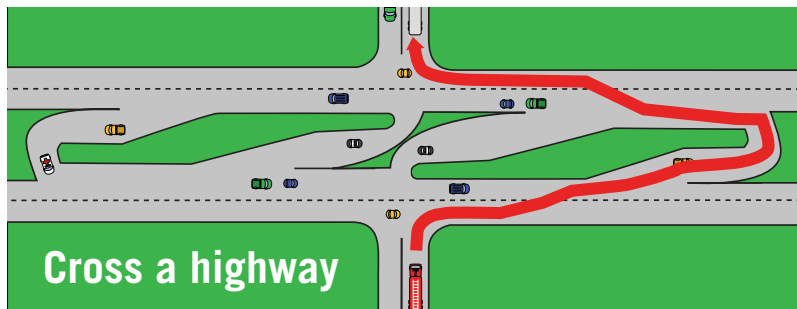
Many rural divided highways throughout Minnesota use standard at-grade intersections.

These intersections have a greater risk of severe right-angle or T-bone crashes, especially for drivers who attempt to cross all four lanes of traffic or turn left. From 2006 to 2010, more than 200 severe injury or fatal crashes in Minnesota occurred at these types of intersections.

Reduced conflict intersections increase safety

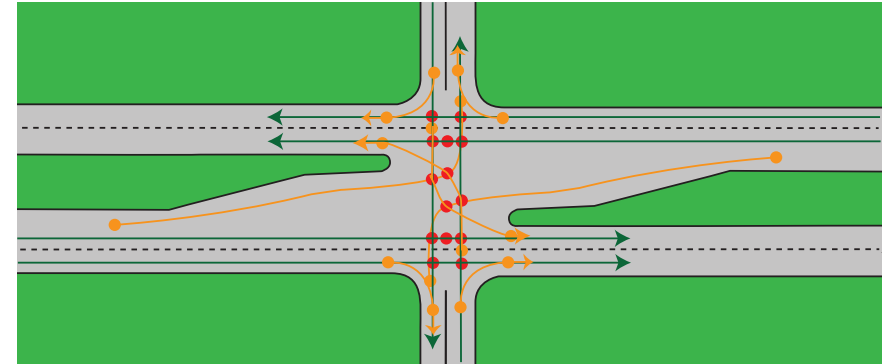
The RCI is highly effective at reducing right-angle crashes.

Motorists approaching divided highways from a side street are prohibited from making left turns and crossing; instead they must turn right onto the highway, then make a U-turn at a nearby opening in the median. RCI designs direct side-street traffic to approach the intersection and turn right onto the main road.



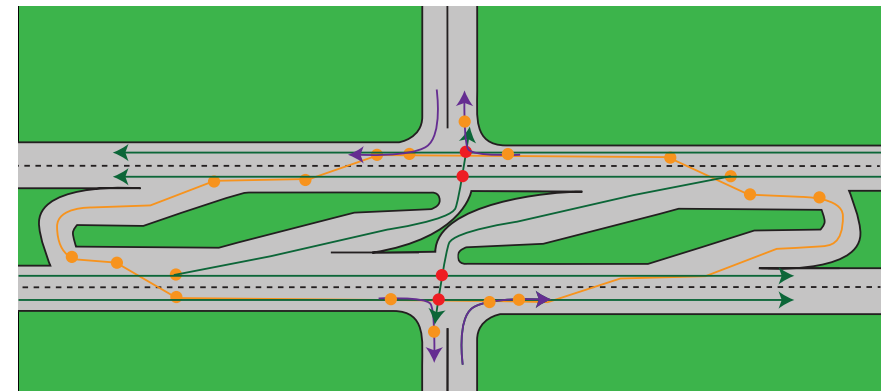
Why RCIs work

Traditional four-lane divided intersections have 42 conflict points, 24 of which are considered crossing conflict points. Crossing conflict points have a high risk of a severe crash.



42 total conflict points
● 24 crossing
● 18 merge/diverge

The RCI has only 24 conflict points, and only four crossing conflicts points.



24 total conflict points
● 4 crossing
● 20 merge/diverge

With fewer crossing conflict points, there is a reduced risk for severe right angle crashes.

The results

Reduced conflict intersections are a new alternative to traditional intersections, and allow motorists to cross traffic on four-lane divided highways more safely, helping reduce traffic crashes, fatalities and injuries. In addition, an RCI takes less time to build, and costs less than an interchange.

- A recent research report conducted by the Federal Highway Administration showed a 70 percent reduction in fatal crashes, and a 42-percent reduction in injury crashes.
- In Minnesota, the RCI has been constructed in six locations, and more locations are planned. At these existing sites, crashes have been reduced 50 percent; crashes involving injuries have been reduced 75 percent and crashes resulting in severe injuries or fatalities have been reduced 100 percent. Overall, right angle crashes have been reduced 85 percent.

Frequently Asked Questions

Why not just install a traffic signal?

Traffic signals have been shown to increase the number of crashes on high-speed rural intersections.

How will customers get to my business?

Customers driving on the four-lane highway have no change in accessibility to the side streets. Turns can be completed as before. RCIs eliminate high-risk through traffic and left turns across four lanes; motorists instead make U-turns.

I live on the side street. Will this new turn take more time to go where I want?

In most situations, motorists will actually save time crossing four lanes with an RCI instead of a traditional traffic signal. Why? Because motorists only wait for one direction of traffic to clear. The total travel distance is usually less than one-half mile of additional distance. One simply turns right, merges and completes a U-turn when traffic is clear.

The RCI: Quicker to build, lower cost, safe solution.

Contact

Derek Leuer
derek.leuer@state.mn.us
651-234-7372

Nov. 2014

Reduced Conflict Intersections *Quicker to build, lower cost, safe solution.*

