

SR20 at Simpson Mill Road

An **RCUT**  
is sometimes  
also referred  
to as a  
**J-Turn**

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Source  
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Cover photo: SR 92 at North Griffin Square

# REDUCED CONFLICT U-TURN INTERSECTION



## Reduced Conflict U-turn (RCUT) Intersection

One of Georgia DOT's safety focus areas are intersections. Nearly one-third of fatal crashes in Georgia are intersection related and many are angle collisions. An angle collision occurs when a motorist entering an intersection from a side street (or accessing the side street from the main highway) is hit by an oncoming vehicle.

To reduce intersection crashes Georgia DOT is installing alternative intersections/interchanges such as roundabouts, median U-turns (MUT), Diverging Diamond Interchanges (DDI) or reduced conflict U-turns (RCUT).

## What is an RCUT and how does it work?

An RCUT is an intersection design that reduces crashes by changing how minor road traffic crosses or turns left at a major road reducing the potential conflict with other vehicles. At an RCUT, minor road traffic must turn right. Left turn and through movements from the minor road are accomplished through the use of a downstream U-turn. All movements (left, through, and right) are allowed from the major road.

For example:

- Drivers who would turn left from the minor road at a conventional intersection must now turn right instead; then make a U-turn at the designated location.
- Drivers who would cross the main highway once reaching a conventional intersection must now turn right first, make a U-turn at the designated location and then turn right onto the adjoining side street at the RCUT intersection.

## Benefits of RCUT

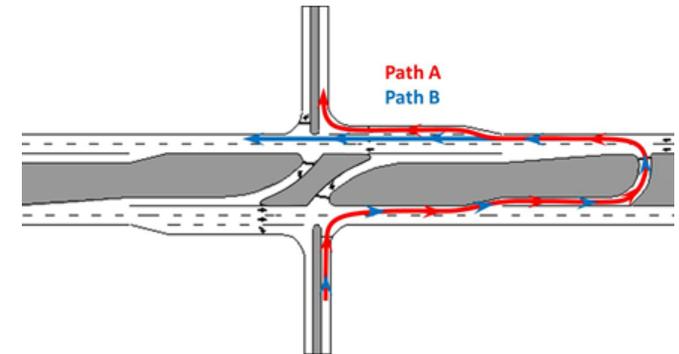
Georgia DOT plans to install more RCUTs statewide. Several have already been installed, including one at the Intersection of SR 20 and Simpson Mill Road west of McDonough in Henry County installed in November 2015. GDOT tracked crashes at the intersection from December 2015 through October 2016. Within that 11-month period, only one angle collision occurred – down from 10 within the same period (2014-2015) prior to the RCUT installation. Additionally, for the study period there have been only two injuries compared to 14 injuries prior to the opening of the RCUTs.

## Other RCUT benefits:

- Drivers from the minor road no longer have to navigate an intersection with traffic traveling at high speed from both directions, which decreases the frequency and severity of crashes.
- Nationally, RCUTs have decreased fatal crashes by 70 percent and injury crashes have declined by 42 percent after installing an RCUT.

## RCUTs also:

- Reduce the number and severity of vehicle-to-vehicle conflict points by approx. 50 percent in comparison to conventional intersections.
- Supports a community's pedestrian and bicycle goals as provisions for walking and biking can shape the RCUT design.
- Reduces delay and congestion for through traffic on major road.
- Reduces queuing on the minor road because vehicles do not have to wait for gaps in traffic traveling in two directions.
- Installing RCUT intersections is accomplished in much shorter timeframes than traditional intersections that require more extensive roadwork, greatly reducing cost.
- Provides local access to a main highway while delivering safer, more efficient travel.
- Provides access to local businesses and commercial areas because the U-turns accommodate all movements.



FHWA: <https://safety.fhwa.dot.gov/intersection/innovative/uturn/>