

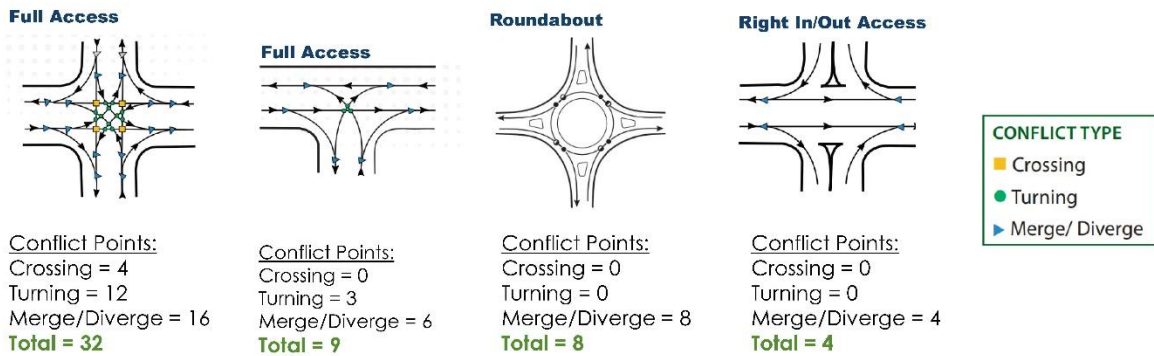
Access Conflict Points

What is a Conflict Point?

A conflict point is the point at which a highway user crossing, merging, or diverging from a road or driveway conflicts with another highway user using the same road or driveway.

Why are Conflict Points Important?

The more conflict points the higher the number of potential vehicle crashes. Some conflict point types also result in crashes with a higher level of severity. For example, a T-bone crash at an intersection is more likely to result in serious injury than a sideswipe type crash at a roundabout.



Source: Minnesota's Best Practices and Policies for Safety Strategies on Highways and Local Roads

Highway 58 & County Road 9 Roundabout – Goodhue, MN



Picture 1 “Full Access”

ADA Text: A picture of a full access intersection showing different types of conflict points.

Picture 2 “Full Access”

ADA Text: A picture of a full access intersection showing different types of conflict points.

Picture 3 “Roundabout Access”

ADA Text: A picture of an intersection with a roundabout showing different types of conflict points.

Picture 4 “Right In/Out Access”

ADA Text: A picture of an intersection with right-in/out access control showing different types of conflict points.

Picture 5 “Conflict Type”

ADA Text: A legend showing symbols for different conflict point types.

Crash History

Crash Data

Crashes at the intersection between **2017** and **2021** were examined. Below is the number of crashes sorted by level of injury or damage.

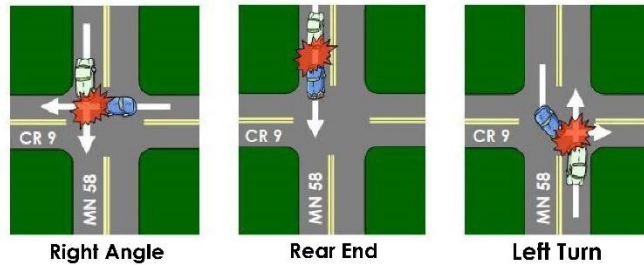
Level of Injury/Damage	Number of Crashes
Fatality	1
Serious Injury	1
Minor Injury	3
Possible Injury	5
Property Damage Only	8
5-year Total	18

- Rate of crashes is **16 times** higher than average in Minnesota for similar rural intersections with side street stop signs
- Rate of fatality or serious injury is **33 times** higher than average in Minnesota for similar intersections

Crash Patterns

- The most common crash type at the intersection was a right angle crash – 16 crashes between 2017 and 2021
- The one fatal crash was a left turn crash, leading to a head-on collision
- One rear end crash occurred on County Road 9 involving a farm vehicle

Crash Types



Source: Thinking Driver

Highway 58 & County Road 9 Roundabout – Goodhue, MN



Table: “A table showing the number of crashes for each level of injury or damage and the five-year total number of crashes”

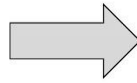
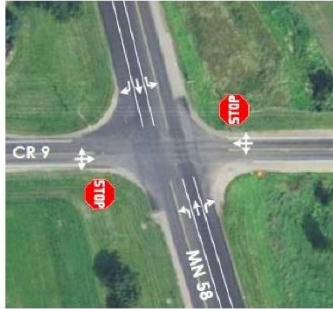
Picture: “Three diagrams showing an aerial view of two cars at an intersection experiencing different types of crashes, from left to right – right angle crash, rear end crash, left turn crash”

Improvements to Safety

Safety Analysis

An analysis was performed to find which improvements would create a safer intersection.

Converting the side street stop intersection to a roundabout offers the greatest crash reduction potential



69% ↓

Decrease in right angle crashes

83% ↓

Decrease in left turn crashes

+80% ↓

Decrease in fatal and serious injury crashes

- Roundabouts have lower approach speeds and fewer opportunities for high-speed angle and left turn crashes, which are more severe and result in more serious injuries
- Previous MnDOT studies have proven that roundabouts reduced severe crashes at similar intersections

Highway 58 & County Road 9 Roundabout – Goodhue, MN

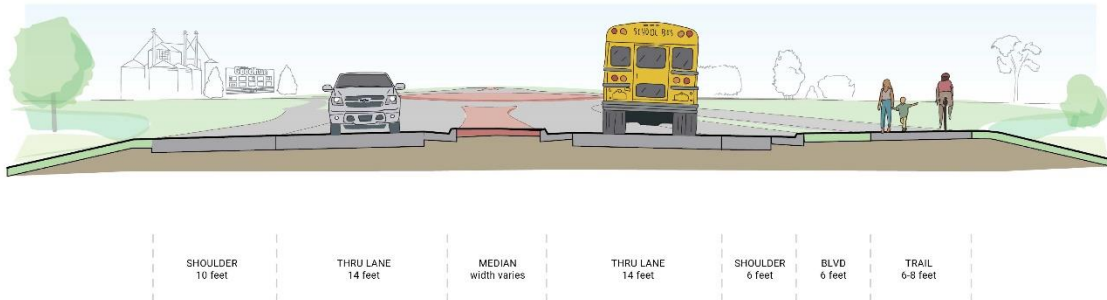


Left Picture: “Aerial view of the existing Highway 58 and County Road 9 intersection with two stop signs on the County Road 9 legs”

Right Picture: “Aerial view of the proposed roundabout at the Highway 58 and County Road 9 intersection with yield signs on all legs”

Typical Section Drawing

Location:
Highway 58 Northbound, Approaching County Road 9



Highway 58 & County Road 9 Roundabout – Goodhue, MN



Picture: This is a section drawing of the roadway as if looking north along highway fifty eight toward the intersection of county road nine. This section shows two fourteen foot through lanes, a median which varies in width, two ten foot shoulders, and a six to eight foot wide trail on the east side.