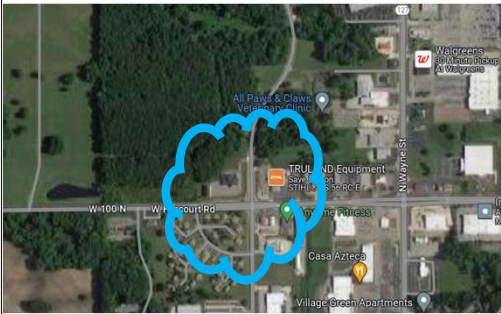


## Project Location

Located directly next to Anytime Fitness and the post office, our project is located approximately a mile from McDonalds and Walmart as well.



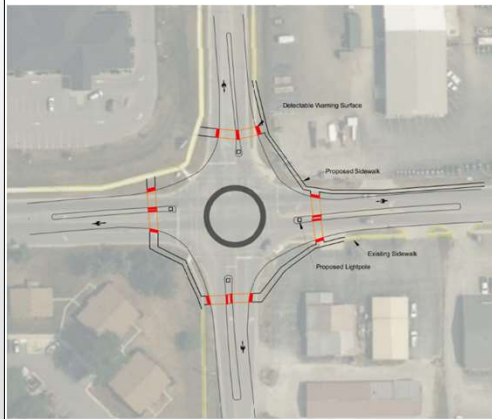
## Problems

Current intersection lacks vehicle and pedestrian safety due to poor geometric design and lack of existing sidewalks. High volumes also caused poor intersection inefficiency.



## Solution

Implementing a roundabout will increase safety because it reduces the number of conflict points, lowers vehicle speeds, and minimizes the likelihood and severity of crashes by promoting continuous, controlled traffic flow.



## Data Collection

Used Black Cat Radar's and Jamar pneumatic tubes to gather traffic counts used to determine volume and ultimately level of service of the intersection.



## Roundabout vs Stoplights

Unlike traditional intersections, roundabouts allow for continuous traffic flow, as drivers only need to yield to vehicles already in the roundabout. This design reduces delays and minimizes congestion during peak periods by maintaining a steady movement of traffic. The streamlined operation also prevents the lengthy backups often associated with signalized intersections.



## LID Features

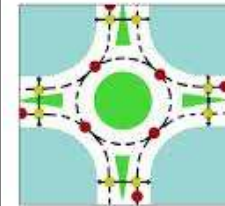
This roundabout incorporates Low Impact Development (LID) features to manage stormwater sustainably. A rain garden collects runoff, filters pollutants, and reduces flooding while adding natural beauty. Permeable pavers in crosswalks and vegetated swales further aid infiltration and minimize surface runoff, showcasing a balance between functionality and environmental stewardship.



## Benefits

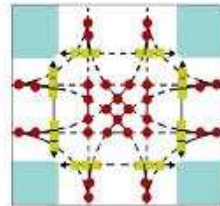
In regular intersections, accidents like head-on crashes or high-speed right-angle collisions can happen, especially if someone runs a red light or stop sign. These types of crashes are some of the most dangerous and often cause serious injuries or even deaths. With roundabouts, those types of accidents are nearly impossible. This has led to a 90% drop in fatal crashes and a 76% decrease in injuries.

### Roundabout



● 8 Vehicle conflicts  
■ 8 Pedestrian conflicts

### Intersection



● 32 Vehicle conflicts  
■ 24 Pedestrian conflicts



## Roundabout Geometry

