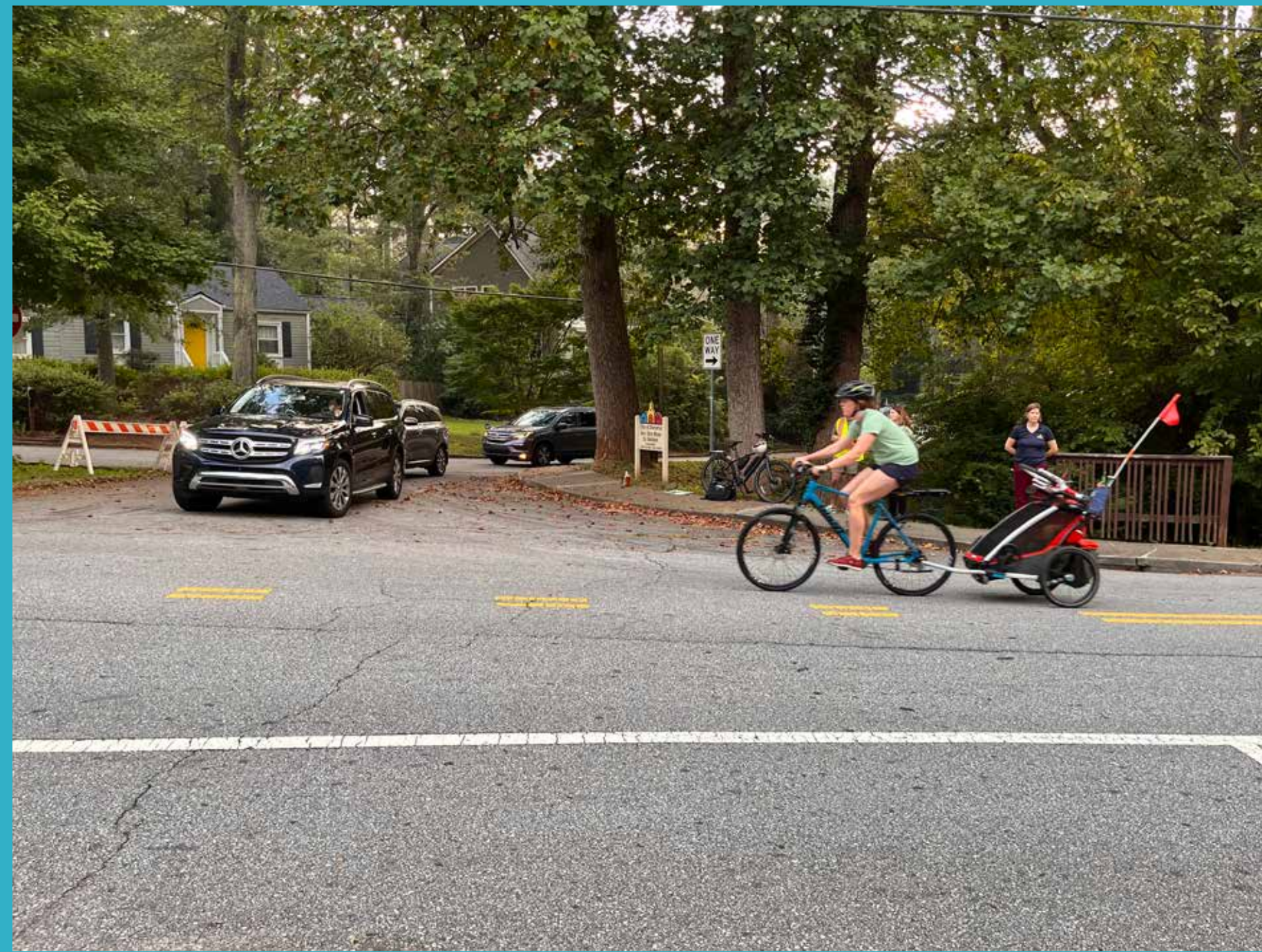


What is **Traffic Calming** and why does the City of Decatur do this?



Traffic Calming Explained

The **City of Decatur** is considering traffic calming along **S McDonough Street and at the intersection with Garland Avenue**. Traffic calming is a strategy used along local, residential streets to reduce traffic speeds and accidents, creating safer, more pleasant streets for pedestrians and cyclists as well as motorists. Traffic calming can incorporate both non-physical and physical strategies to cue drivers that appropriate residential driving behavior is expected along the City's neighborhood street network. Some traffic calming techniques include midblock crossings with crosswalks and rectangular rapid flashing beacons (RRFBs), striping narrow lanes, speed tables, curb extensions, chokers, center islands and chicanes. These traffic calming techniques can be implemented at a low cost.

While there are many traffic calming "tools" that can be considered, each tool is designed to address specific issues and produce certain results. For the best traffic calming results, the correct tools must match the correct issue or issues being observed. These tools should also be considered a "first phase" towards more permanent improvements aimed at fundamentally improving the safety and experience of city streets.

Decatur's Position on Calmer, Safer Streets

The City of Decatur takes a "safe systems approach" towards its street and transportation network. This approach sets speed limits based on anticipated crash types. As part of a boarder safe streets for all initiative, per the 2018 Community Transportation Plan, the City of Decatur is determining the most appropriate method for reducing vehicle speeds. Additionally, it is a policy per the City's 2020 Strategic Plan, to embrace "deep walkability." Creating safer, calmer streets is one way we accomplish this. **This also means we are willing to trade some level of delay for motorists to create safer streets for our non-motorized users.** The City of Decatur aims to implement quick-build improvements to target specific safety issues with phased construction solutions.

What's happening on **S McDonough Street and Garland Avenue** today?



Drop-off queue jumping during the busiest morning period of 7:30-8:00a



No clear pedestrian crossing route and numerous conflicts due to the slip lane



Poor visibility and incomplete stops at the slip lane stop sign



Higher vehicle speeds on S McDonough Street during non-peak periods

Crash Data

Records indicate a total of eight crashes at this location from 2015 to 2022. These accidents occurred near the intersections of S McDonough Street and Garland Avenue and Griffin Circle. Fortunately, there have been no pedestrian injuries or fatalities associated with these crashes so far. However, the reports from these crashes noted that excessive speed and other improper behaviors were the contributing factors. These match the field observations made by the project team on this street and these intersections.



What are some of the right **Traffic Calming Tools** for this location?

CHICANES

Horizontal treatments that force drivers to alter the vehicle movement and reduce speeds. Chicanes are often made of curb extensions or islands that create "S" curves along a roadway. They help improve driver attention to the roadway as they must navigate shifts in the lane.

Safe System Framework

- Increase attentiveness
- Reduce speeds

Crash Types

- Head On
- Motorist/pedestrian

Modes

- Motorist
- Pedestrian
- Bicyclist
- Skateboarder

Relevant Roadway Type & Application

- Along corridors.
- Local streets, and some collectors.

Considerations

- Include signage and striping around chicanes that help ensure that drivers are aware of a shift in the lane.
- Consider landscaping within chicanes that are low vegetation or trees with high canopies to maintain visibility.
- Consider the effect on drainage along the roadway. If there is a concern, chicanes may be designed as edge islands with a 1-2-foot gap from the curb.

Cost & Effectiveness

Cost per Mile: \$ \$ \$ \$ \$ \$ \$ \$

Crash Reduction Factor: A crash reduction rate has not yet been determined.

Additional Resources

- DOT Pedestrian and Streetscape Guide
- FDOT's Pedestrian Safety Guide and Countermeasure Selection System
- NACTO Urban Street Design Guide

SLIP LANE CLOSURES

Slip lanes are typically designed to allow motorists to make right turns without stopping at intersections. Closing or modifying slip lanes can make them safer by reducing motorists' speeding, increasing attentiveness and visibility, and shortening crossing distances for people walking.

Safe System Framework

- Increase visibility
- Increase attentiveness
- Reduce speeds

Crash Types

- Motorist/pedestrian

Modes

- Motorist
- Pedestrian
- Bicyclist
- Skateboarder

Relevant Roadway Type & Application

- Signalized intersections.
- Unsignalized intersections.
- All locals, collectors, and arterials with existing slip lanes.

Considerations

- Seek opportunities to repurpose previous slip lane area for landscaping and other streetscape amenities.

Cost & Effectiveness

Cost per Mile: \$ \$ \$ \$ \$ \$ \$ \$

Crash Reduction Factor: A crash reduction rate has not yet been determined.

Additional Resources

- FDOT's Pedestrian Safety Guide and Countermeasure Selection System

HARDENED CENTERLINES

Flexible delineators placed between opposing travel lanes that guide drivers to make wider turns angle for safer and more predictable turns. They reduce the speed of drivers making left turns without reducing traffic capacity and increase yielding drivers to people in the crosswalk.

Safe System Framework

- Increase visibility
- Reduce speeds

Crash Types

- Motorist/pedestrian

Modes

- Motorist
- Pedestrian
- Bicyclist
- Skateboarder

Relevant Roadway Type & Application

- Signalized and unsignalized intersection.
- Collectors and arterials.

Considerations

- Construct rapidly and inexpensively using markings and flexible delineators as an alternative or initial safety countermeasure before raised medians.

Cost & Effectiveness

Cost per Mile: \$ \$ \$ \$ \$ \$ \$ \$

Crash Reduction Factor: 46% (Behar, C., et al., 2007)

Additional Resources

- FHWA Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations
- Chapter 8 of Designing Sidewalks and Trails for Access: Part II of the Best Practices Design Guide

CURB EXTENSIONS & BULBOUTS

Extensions to a section of sidewalk into the roadway at intersections and other crossing locations. They shorten the crossing distance for people walking, reduce turning speeds, and improve sight distance between drivers and people crossing. Curb extensions/bulb outs can be installed as permanent curb reconfigurations, or through paint and post bulb outs.

Safe System Framework

- Separate users in space
- Increase visibility
- Increase attentiveness

Crash Types

- Motorist/pedestrian

Modes

- Motorist
- Pedestrian
- Bicyclist
- Skateboarder

Relevant Roadway Type & Application

- Midblock crossings.
- Signalized intersections and unsignalized intersections.
- All locals, collectors, and arterials.

Considerations

- Consider installation in parking lanes or wide shoulders.
- Use lower cost alternatives, such as bollards, temporary curbs, planters, or paint and striping.
- Limit planting and street furniture height within curb extensions to preserve sight lines.
- Consider expanding curb extensions at bus stops to produce bus bulbs.
- Consider curb extension installation on the one side of roadway even when conditions make installation infeasible or inappropriate on the other side (e.g., no parking lane).

Cost & Effectiveness

Cost per Mile: \$ \$ \$ \$ \$ \$ \$ \$

Crash Reduction Factor: A crash reduction rate has not yet been determined.

Additional Resources

- NACTO Urban Street Design Guide
- FHWA Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations
- FDOT's Pedestrian Safety Guide and Countermeasure Selection System

Why isn't an **All-Way Stop** a calming tool?

It is a misconception that all-way stop signs are best for addressing speeding and pedestrian safety concerns. The installation of an all-way stop sign is dictated by the Manual on Uniform Traffic Control Devices (MUTCD). The MUTCD requires specific warrants to be met in order to install these at an intersection. They are used where traffic volumes on all approaches of an intersection are approximately equal. If an all-way stop sign is unwarranted, the majority of drivers either roll through the stop sign or ignore the sign entirely, which puts pedestrians and cross traffic at risk. An unwarranted stop sign creates a false sense of security that pedestrians can safely cross because drivers are obligated to stop. Additionally, national studies have repeatedly shown that stop signs only slow vehicles as they approach the intersection, rather than reducing the overall speed of the corridor. Drivers feel the need to make up for lost time from stopping, thus resulting in higher speeds immediately after the intersection.



What could **Traffic Calming** on S McDonough Street and Garland Avenue look like?



Lane shift and chicanes to slow traffic down and increase driver attentiveness; chicanes can be planted to improve visual appeal and reinforce neighborhood character



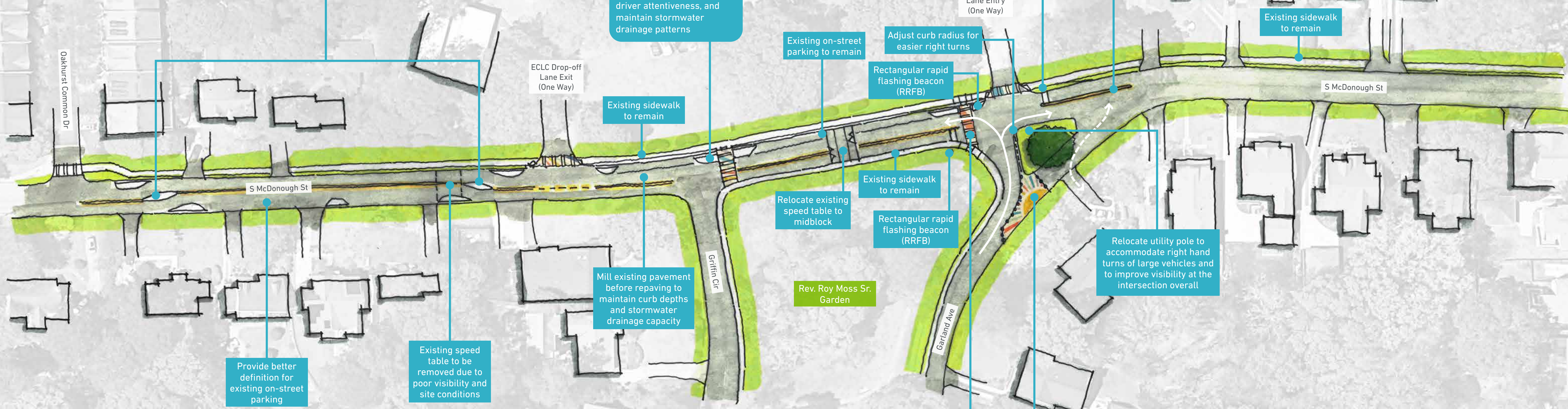
Curb extensions to protect pedestrian crosswalks, increase visibility, improve driver attentiveness, and maintain stormwater drainage patterns



Adjust curb location and provide new signage and stop bar to increase pedestrian separation from the street and guide the drop-off queue to keep the intersection clear for large, right-turning vehicles



New hardened centerline to prevent southbound queue jumping in the drop-off line



New pedestrian crossing with rectangular rapid flashing beacons (RRFBs) to provide a predictable, safe crossing for pedestrians along the existing sidewalk on S McDonough St (new sidewalks are outside the scope of this project), increase crossing visibility to drivers, and to reduce vehicular speeds; crosswalk is also a potential asphalt art/mural opportunity



Slip lane closure with neighborhood mural opportunity protected by flexposts and wheel stops; better organizes the intersection to direct pedestrian crossings, increase pedestrian visibility, and reduce vehicular speeds



Why did we test the Slip Lane Closure?



Slip Lanes Explained

Slip lanes are dangerous because they sacrifice safety for speed. The goal of “keep cars moving fast at all times” runs counter to the goal of “keep all road users safe.”

Slip lanes were created to solve one specific set of problems: vehicle speed and delay. The perception was that vehicles turning right produce congestion because stopping and slowing down to a safe turning speed can cause delay to vehicles going straight or turning left. However, slip lanes put pedestrians into spots that are hard for drivers to see, and encourage drivers not to stop or slow down when approaching an intersection and a crosswalk—the moment drivers should be most careful.

Testing a Safer Approach

Intersections should be designed to accommodate safe pedestrian crossings using tight curb radii and shorter crossing distances. Protecting the safety of all people who use the street must be a priority reflected in the decisions we make about how to fund, operate, maintain, and measure the success of our roads. This includes considering the removal of slip lanes, such as the one at the Garland Avenue intersection with S McDonough Street, where safety should be prioritized over speed.

It is likely that closure of the slip lane to slow cars down on Garland Avenue will cause cars to backup or queue, but this change is the result of prioritizing safety over vehicle speed or delay. The closure of the slip lane was trialed for two weeks from September 5-20 to observe changes in delay and safety and adjust the design approach accordingly.

How did this shape the design concept?

In response to the observations, survey data, and other feedback, the design concept was adjusted in the following ways:

- Added crosswalks with stop bars and rectangular rapid flashing beacons to the S McDonough St and Garland Ave intersection to completely establish this location as a safe, pedestrian crossing
- Used bulbouts and curb extensions to reduce pedestrian crossing distances and protect the crossings
- Proposed changing the curb radius and relocating the existing utility pole on the triangular island to facilitate right turns by vehicles
- Added a hardened centerline to S McDonough St on the north side of the Garland Ave intersection to reduce queue jumping during the school drop-off period

What did we observe while the Garland Avenue slip lane was closed for two weeks?



During the busiest 30 minute period, the longest queue is 6 cars which clears in about 60 seconds or 20 seconds per driver



Pedestrians more regularly crossed at the intersection



Almost all vehicles at this intersection are turning right or crossing into the school drop-off line



Most queuing is occurring southbound on S McDonough Street due to the school drop-off lane



No changes in queue jumping; additional solutions to deter jumping are needed



The turning radius for right turns, especially for large vehicles, is too tight

What happens next?

Tactical Changes

Permanent Changes

Phase 1

Fall/Winter 2023

- Milling and repaving
- Constructing bulbouts and curb extensions
- Restriping and other pavement markings

Phase 2

Fiscal Year 23-24

- Installing rectangular rapid flashing beacons (RRFBs) at crossing
- Designing and painting asphalt art based on feedback

Phase 3

To Be Determined

- Proposed intersection redesign

What did we hear from the users of this intersection?

Survey Response

A web-based survey designed to evaluate the perception of safety was available via QR code on site sign postings during the trial period. This is a summary of the results as of September 20, 2023 when the trial ended:

- ~52% of respondents live on Garland Ave or S McDonough St: 48% of respondents live on Garland Ave and 4% of respondents live on S McDonough St
- 91% of respondents are residents; 13% are parents of students at College Heights
- Most respondents use this intersection daily headed to work, home, or school
- All respondents are motorists through this intersection; 75% of respondents walk through this intersection; 40% of respondents bike through this intersection
- About 20% of respondents reported feeling safer at this intersection as a pedestrian, cyclist, or driver
- Most respondents felt less safe at this intersection; about 20% felt no change in safety
- 18% of respondents sometimes or always avoid this intersection

Email Feedback

We directly received or were copied on numerous emails regarding the slip lane closure and other observations about potential street improvements. This is a summary of the most common themes:

Notable Concerns

- Right turn onto S McDonough St is tight for most vehicles: most vehicles cross the double yellow line, including school buses
- Right turn onto S McDonough St is “blind” and “more dangerous”
- Unsafe intersection for pedestrians: no sidewalk on east side of S McDonough St
- Vehicles are not stopping at the stop sign
- “Congestion” related to school traffic; desire for “free flow” right/slip lane to remain open to avoid left turns onto S McDonough St or directly into the school drop-off
- On September 14th, a construction delivery truck blocked the entire intersection causing queuing back to the Brower St intersection and cars going wrong way down the one-way street; **this was an isolated incident**

Notable Benefits

- Minimal impact to Garland Ave traffic; most impacts limited to a small peak period
- Parents using the sidewalk to bring their children south to school have felt safer
- Safety first, congestion second: traffic is noticeable slower and feels safer

Haven't taken the survey yet?
We still want to hear from you.



For more information, contact:

Cara Scharer
cara.scharer@decaturga.com
678.553.6530