

# Morrisville Parkway Access Management Study Recommendations



# Introduction

- The goal of this study is the development of an access management strategy for Morrisville Parkway to evaluate curb cuts, intersection safety, and multi-modal connectivity
- The corridor was identified as a high priority in the Town of Morrisville's 2019 Comprehensive Transportation Plan (CTP).
- This study is examining:
  - Median openings
  - Access controls
  - Signage
  - Signalization
  - Intersection operations
  - Multimodal connectivity along and across the corridor
  - Speed limits
  - Traffic calming opportunities
- The recommendations will incorporate public input in addition to collected data and traffic analyses.

## Project Timeline



# Public Involvement Summary

- **Phase 1: Document and Assess Existing Conditions**
  - Past Community Events
    1. Trick-or-Treat the Trail - October 21, 2023
    2. Pop-up event at Morrisville Aquatic and Fitness Center - November 7, 2023
  - Survey
    - 164 total responses
    - Received feedback about safety and traffic for all modes including pedestrians, cyclists, vehicles, and transit

The screenshot shows a survey titled "Morrisville Parkway Access Management Study". It includes a map of the study area, a QR code, and several sections of questions. Section 1 asks for demographic information. Section 2 asks how often respondents travel along the corridor. Section 3 asks for the purpose of travel. Section 4 asks how respondents describe traffic volume. Section 5 asks about safety and security. Section 6 asks for suggestions for improving traffic flow. Section 7 asks for anything else to be added. Section 8 asks for feedback on the survey.

Phase 1 Survey



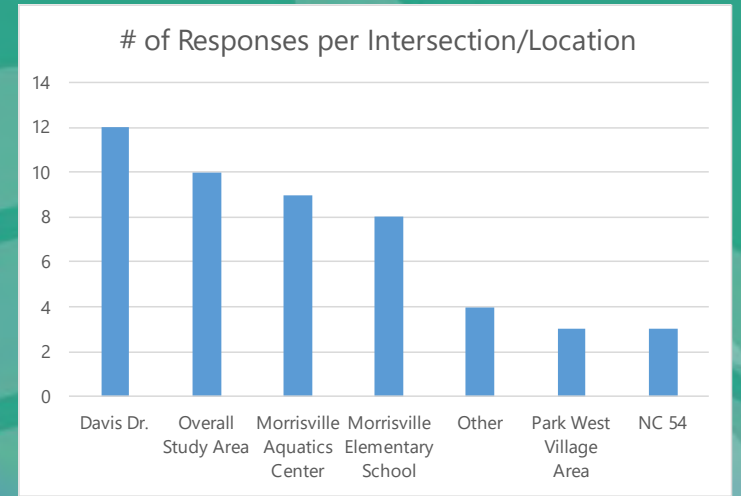
October Community Event

# Public Involvement Summary

## Phase 2: Develop Design Priorities and Design Concepts

### — Survey

- 52 Total Responses within March-April open period.
- Received feedback on preliminary recommendations for all modes including additional concerns and suggestions.
- Most feedback regarding Davis Drive intersection (12 Responses), Morrisville Aquatics Center (10 Responses), Overall Study Area/Proposed Cross-Section (10 Responses), and Morrisville Elementary School (8 Responses).
- Positive feedback regarding additional signals, crosswalks, and turn lanes.
- Concerns regarding pedestrian/cyclist safety, intersection channelization, and vehicle speeds.

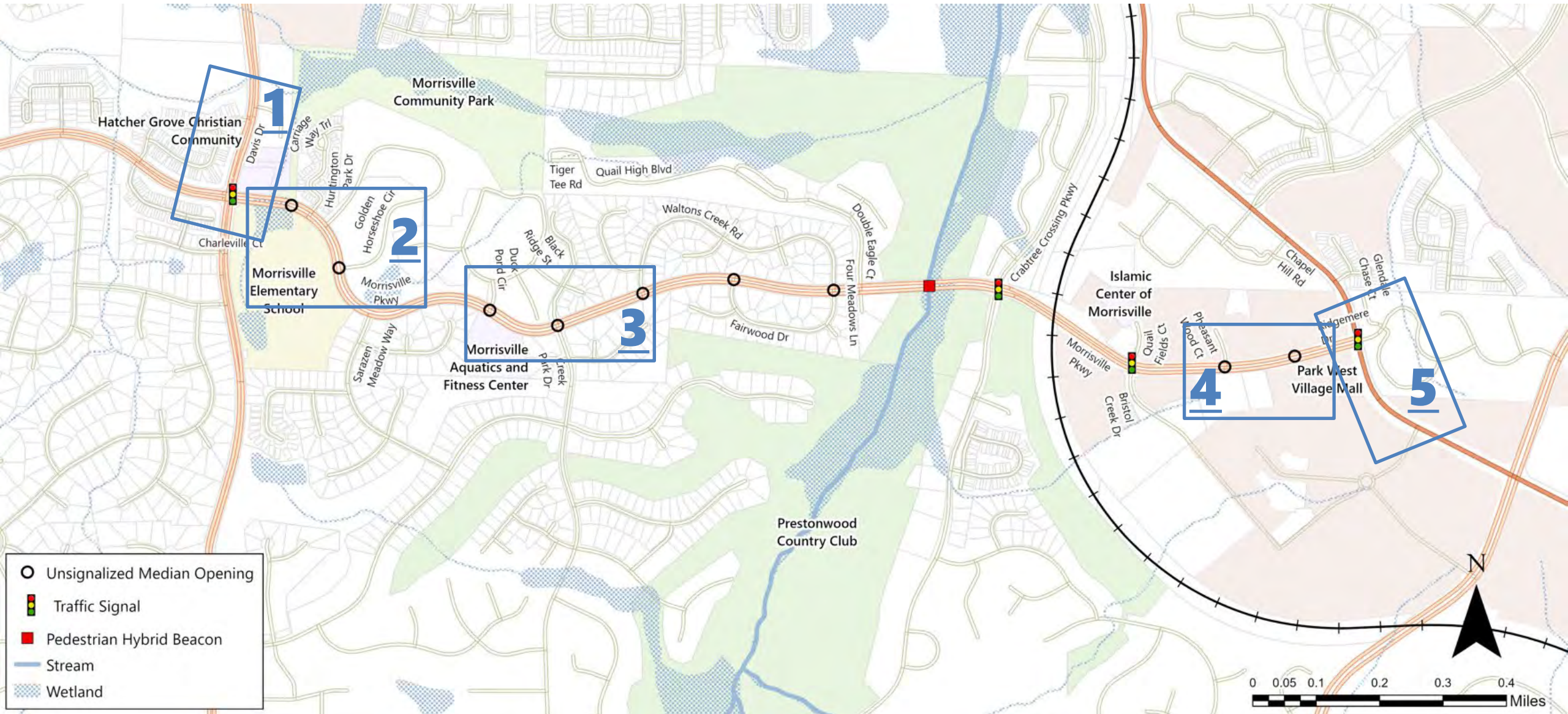


Phase 2 Survey Responses

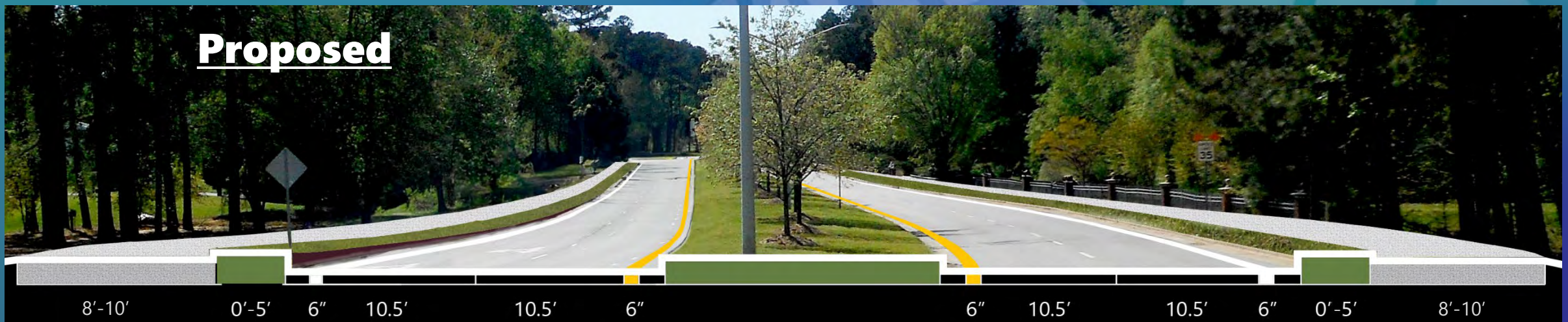
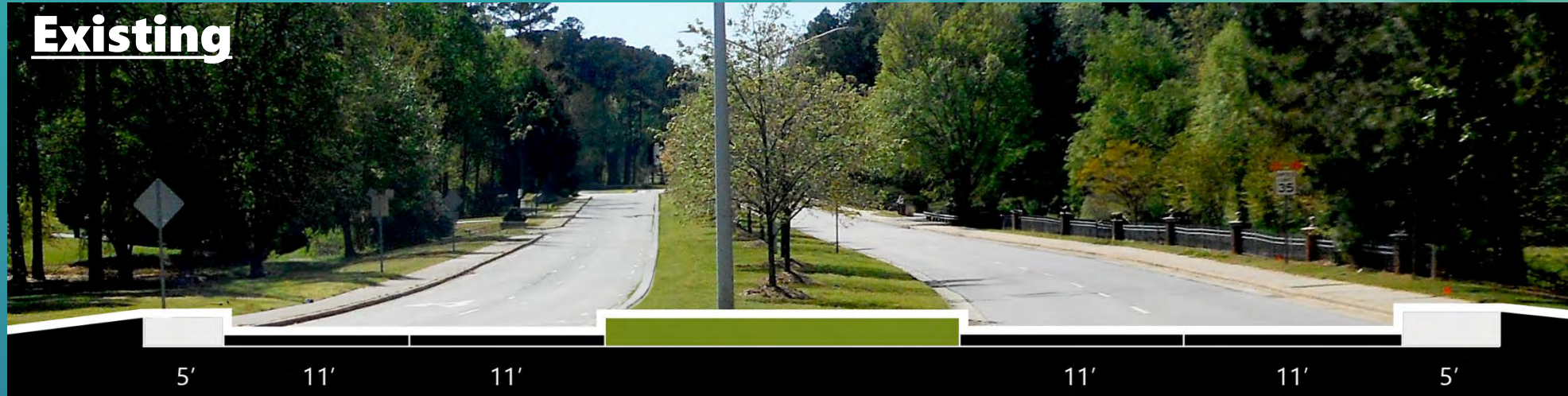


Phase 2 Survey Word Cloud

# Areas for Improvement



# Recommended Corridor Cross-Section



- **Multi-use path on both sides of road**
- **Lane striping to visually narrow travel lanes and reduce speeds**
- **Path width and separation to road may vary based on right-of-way availability**

# 1. Morrisville Parkway at Davis Drive

## Summary of Issues/Challenges

- This intersection experiences heavy traffic and delays during morning and afternoon peak travel periods
- Extensive queueing for the southbound left-turn movement during the afternoon peak hour
- A shared thru and right-turn lane currently exists on westbound Morrisville Parkway and there is not a dedicated right-turn lane available for vehicles accessing northbound Davis Drive
- Large intersection results in difficult crossings for pedestrians
- High number of left-turn and rear end crashes



# Recommendations Davis Drive Area

← To Walmart Neighborhood Market

Davis Drive (SR 1613)

Willow Creek Senior Living Apartments

Bambino's Playschool



Add a westbound right-turn lane

Davis Drive (SR 1613)

Morrisville Elementary Driveway

Morrisville Parkway (SR 3060)

↑ To NC 54

Davis Drive (SR 1613)

Add a second southbound left-turn lane

- Add high visibility crosswalk markings on all approaches
- Add a Leading Pedestrian Interval to signal

→ To Publix

Westover Park

↓ To NC 55

Morrisville Parkway (SR 3060)

Mid-Term Improvement

Long-Term Improvement



## 2. Morrisville Parkway at Morrisville Elementary

### Summary of Issues/Challenges

- Very high pedestrian crossing volume associated with Morrisville Elementary arrival and dismissal periods
- Vehicles not properly yielding to pedestrians in crosswalks
- Extensive queueing present during the afternoon school pick-up for Morrisville Elementary School, resulting in stopped vehicles along Morrisville Parkway
- Inadequate left-turn storage at western school driveway
- Visibility concerns for crossing pedestrians and vehicles due to curves on Morrisville Parkway
- Pedestrian crossings are difficult when the school crossing guard is not present



# Recommendations Morrisville Elementary Area



**Lengthen the eastbound left-turn lane**

**Add Pedestrian Hybrid Beacon (PHB)**



*Pedestrian Hybrid Beacon (PHB)*

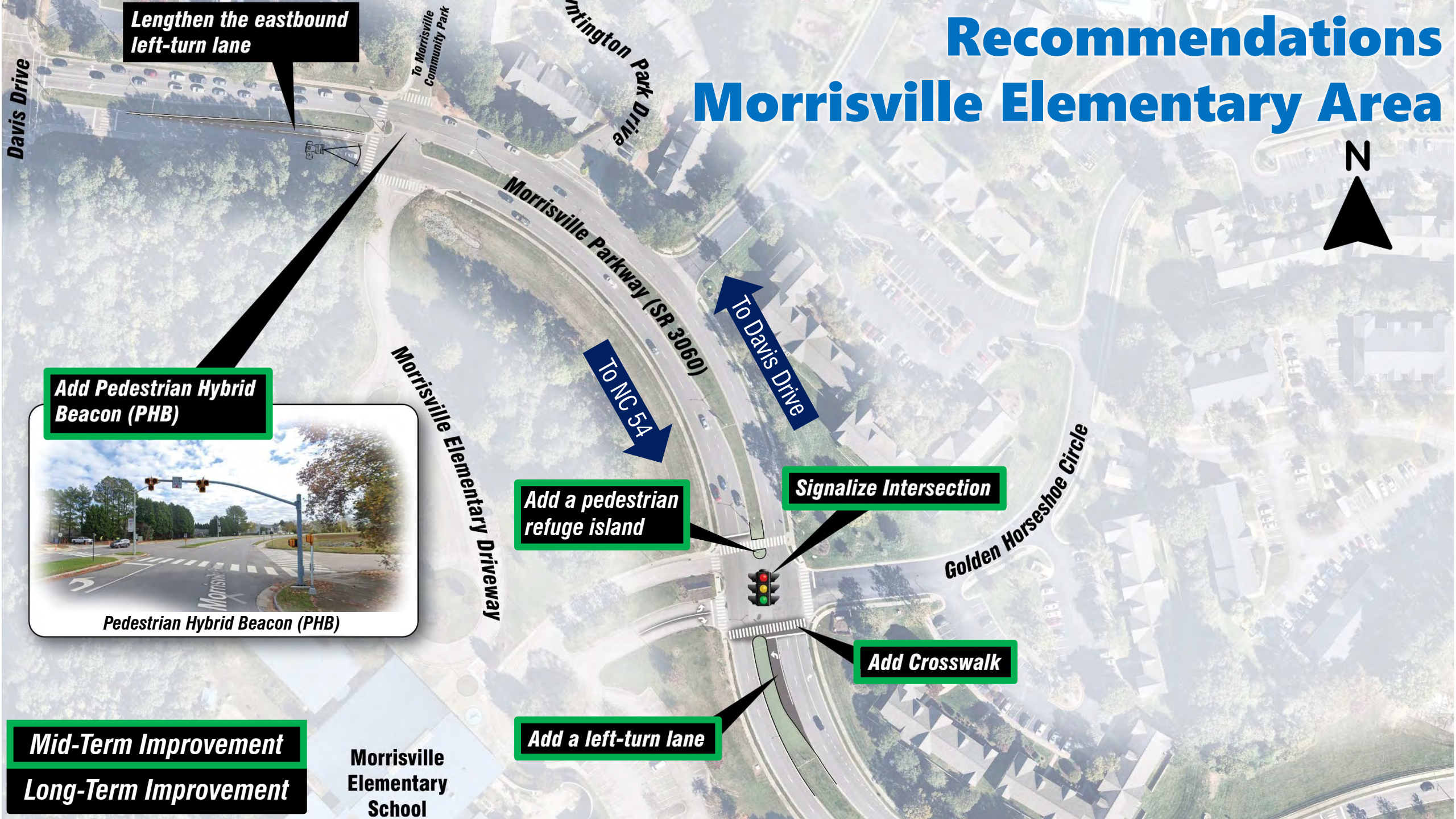
**Mid-Term Improvement**  
**Long-Term Improvement**

**Add a pedestrian refuge island**

**Signalize Intersection**

**Add Crosswalk**

**Add a left-turn lane**



Morrisville  
Elementary  
School

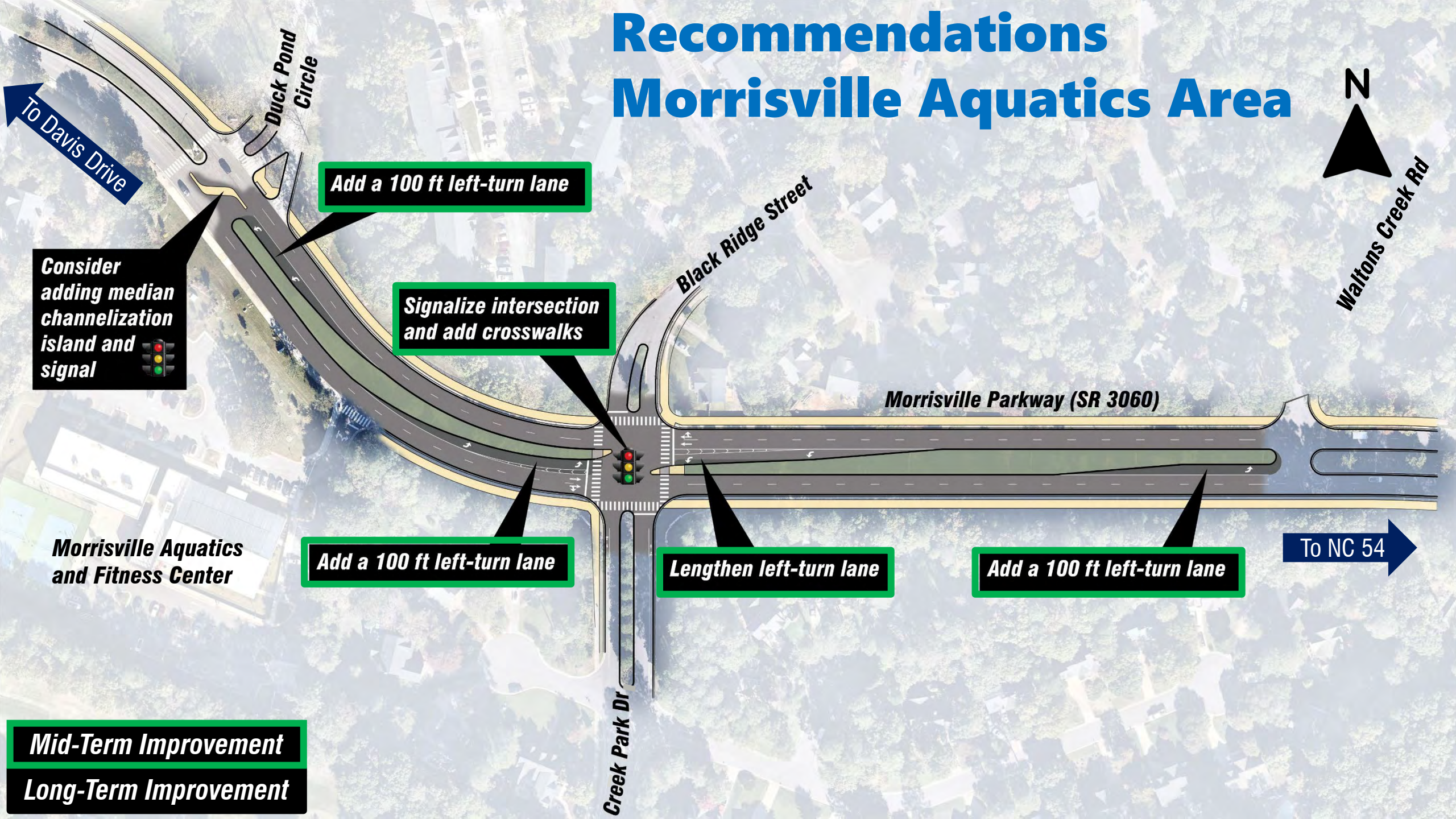
# 3. Morrisville Parkway at Morrisville Aquatics Center

## Summary of Issues/Challenges

- The Duck Pond Circle and Black Ridge Street/Creek Park Drive locations experienced the most crashes of any unsignalized intersection along the corridor
- Crosswalks currently exist across Creek Park Drive and Black Ridge Street, however crosswalks are not present across Morrisville Parkway in this location.
- Vehicles not properly yielding to pedestrians crossing Morrisville Parkway
- There are a lack of left-turn lanes along Morrisville Parkway for each direction
- Limited sight distance due to curve sections



# Recommendations Morrisville Aquatics Area



To Davis Drive

Duck Pond Circle

Add a 100 ft left-turn lane

Consider adding median channelization island and signal

Signalize intersection and add crosswalks

Black Ridge Street

Waltons Creek Rd

Morrisville Parkway (SR 3060)

Morrisville Aquatics and Fitness Center

Add a 100 ft left-turn lane

Lengthen left-turn lane

Add a 100 ft left-turn lane

To NC 54

Mid-Term Improvement  
Long-Term Improvement

Creek Park Dr

# 4. Morrisville Parkway at Park West Village Area

## Summary of Issues/Challenges

- There are safety concerns with the Park West Village median opening, due to its proximity to the NC 54 (Chapel Hill Road) intersection which experiences routine congestion and queueing
- New westbound left-turn lanes were constructed at both intersections, however left-turn lanes are lacking in the eastbound direction
- Providing raised median channelization islands would help prevent left turns from the side streets, which help reduce traffic collisions



# Recommendations Morrisville Parkway at Park West Village Area



To Davis Drive

To NC 54

Add a channelization island

New westbound left-turn lane

Add a channelization island to restrict left-turns and thru movements from the side streets

New westbound left-turn lane

Morrisville Parkway (SR 3060)

Add a 100' eastbound left-turn lane

Add a 100 eastbound left-turn lane

Completed Improvement

Mid-Term Improvement

Long-Term Improvement

Triangle Badminton Club

SecurCare Self Storage

Sheetz

Fifth Third Bank

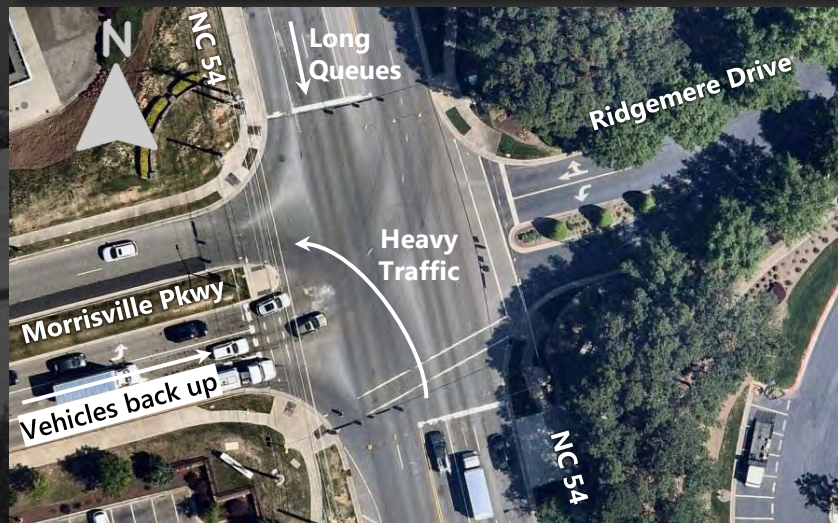
Trader Joe's

Park West Village

Bristol Creek Drive

Pheasant Wood Court

# 5. Morrisville Parkway at NC 54



## Summary of Issues/Challenges

- Highest number of crashes along study corridor
- Vehicles not properly yielding to pedestrians entering crosswalks
- Crosswalk pavement markings are worn
- Heavy northbound left-turn traffic from NC 54
- Eastbound vehicles on Morrisville Parkway can back up to block prior intersection
- Long queues on southbound approach of NC 54

To Davis Drive

Morrisville Parkway (SR 3060)

Ridgemere Drive



- Add high visibility crosswalk markings on all approaches
- Add a Leading Pedestrian Interval to signal

Add a second left-turn Lane

NC 54 - Chapel Hill Road



Fifth Third Bank

Trader Joe's

Mattress Firm

B&B Theatres

Park West Village

Michaels

Blaze Pizza

# Recommendations Morrisville Parkway at NC 54

Mid-Term Improvement

Long-Term Improvement