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## Stakeholder Meeting #1 Minutes

### US 29 Corridor Study – Phase 1

June 15, 2021

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#### In attendance:

Jessica Ballering, TJPDC	Jim Frydl, Greene County
Lucinda Shannon, TJPDC	Alan Yost, Greene County
Nick Morrison, TJPDC	Juhawn Lee, Charlottesville Area Transit
Sandy Shackelford, TJPDC	Stephen Johnson, Jaunt
Adam Moore, VDOT	Andrew Butsick, Kittelson & Associates
Charles Proctor, VDOT	Chris Tiesler, Kittelson & Associates
Nathran Austin, VDOT	Kaitlyn Schaffer, Kittelson & Associates
Kevin McDermott, Albemarle County	Kylie Caviness, Kittelson & Associates

#### Welcome and Introductions

Kylie Caviness (Kittelson) welcomed and thanked the group for attending. She introduced herself as Project Manager and then asked each meeting attendee to introduce themselves. Following the introductions, the study team provided the Stakeholder Group with a summary of the findings from Phase 1, introduced the vision and objectives, and provided the scope for Phase 2 of the study.

#### Study Background

Kylie Caviness (Kittelson) provided a synopsis of the background and scope of the US 29 Corridor Study and its associated phases. The study includes Route 29 between Deerfield Drive in Greene County and Airport Road in Albemarle County. Of the 19 total intersections, 8 are in Greene County and 11 are in Albemarle County. While most traffic counts were collected in April 2021, six intersections have volumes pulled from previous 2018 studies. Kylie explained that the first phase is complete and existing conditions analyses will be presented during the meeting. The purpose of Phase 1 was to identify issues and opportunities, as well as analyze existing conditions and draft goals for a framework plan for Phase 2. The second phase of the corridor study will enact the framework plan developed during the first phase to identify transportation alternatives that will help meet the study goals and objectives.

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## Ongoing Work

Kylie Caviness (Kittelton) provided an overview of the Phase 1 schedule, which will go through June 2021. Phase 1 is in its first two tasks (What are the issues, opportunities, and objectives? What does the data tell us?), which will conclude in late May 2021. The first two tasks for Phase 1 involve data gathering, identifying issues and opportunities, and conducting an existing conditions assessment for the study area. The third task will involve identifying and refining draft goals, objectives, and a framework plan for Phase 2. A second stakeholder meeting will be held during the third task to review findings from the existing conditions assessment, provide feedback on the draft study goals, objectives, and scope. The second stakeholder meeting will be held in mid-June and the third task is scheduled to conclude at the end of June 2021.

Phase 2 of the US 29 Corridor Study is scheduled to start at the end of June 2021 and is expected to conclude within around seven (7) to nine (9) months.

## Corridor Overview

The study team provided a map of the Route 29 corridor and shared the following insights concerning existing zoning, generators, multimodal accommodations, planned and ongoing developments, projects, and studies.

### *Existing Zoning*

- Existing land use surrounding the corridor is largely rural with some industrial areas located south of the corridor and residential/commercial uses located north of the corridor in Greene County.
- Many of the existing rural areas surrounding the southern half of the corridor are in the process of development. Planned land uses adjoining the southern half of the corridor include industrial parks, shopping centers, and residential developments.

### *Generators*

- Generators along the corridor include the National Ground Intelligence Center (NGIC), University of Virginia (UVA) Research Park, and Charlottesville-Albemarle Airport.
  - The Stakeholders recommended adding Hollymead Town Center, a large commercial area south of the corridor to the list of generators.

### *Multimodal Accommodations*

- There are currently no pedestrian or bicycle facilities along the corridor.
- There are no transit stops along the corridor.
  - ParkConnect previously operated on the corridor and provided access to the UVA Research Park. The service ended due to the Covid-19 pandemic. However, the need for a transit service is expected to return as people begin to return to work.

- The Stakeholders recommended including the UVA Foundation in the next stakeholder meeting.

### ***Planned & Ongoing Developments, Projects, and Studies***

- In-process developments along the corridor include:
  - Villages at Terrace Greene (Greene County)
  - Cedar Run Townhomes (Greene County)
  - North Pointe (Greene County)
- Planned and ongoing projects along the corridor include:
  - Constructed RCUTs at Northside Drive, Airport Acres Road North, and U-turn access north of Cypress Drive
  - Route 670 (in design)
  - Striping improvements on Route 29 at Airport Road
  - RCUT at Lewis and Clark Drive (approved by VDOT and expected to move forward to development)
- Completed and ongoing studies along the corridor include:
  - Signal Coordination Study (ongoing)
  - Frays Mill Study (2018)
  - Ruckersville Small Area Plan (2018)
  - Greene County Corridor Study (2018)
  - Greene County Comprehensive Plan Update (ongoing)
  - Local Climate Action Initiatives in Charlottesville and Albemarle County
  - Charlottesville Area Transit Feasibility Study
    - Transit Hub and Park 'n Ride
  - Regional Transit Vision Study
  - Transit Feasibility Study with Albemarle County
- The Stakeholders recommended adding the UVA Research Park to the list of ongoing developments. UVA intends to expand their existing commercial and office spaces.
- The Stakeholders also recommended adding the development near Lewis and Clark Drive and the medium sized residential development on the eastside of the corridor near Camelot Drive to the list of ongoing developments.
- Information is still needed for Creekside Development (Greene County) and Judo Drive Development (Greene County).
- Greene County will provide information about additional developments surrounding the corridor including Seminole Casa.

### **Safety**

The study team conducted a high-level scan of six years of crash data along the study corridor (2015-2016).

- The top three crash types that occurred along the corridor between 2015 and 2020 were rear end (61%), angle (11%), and fixed object – off road (9%).
- Most of the study corridor crashes were located within in the influence area of intersections (485 total - 61%) as opposed to along segments (313 total – 39%).
  - The study team shared a map showing crash totals by intersection. Route 29 intersections with higher numbers of crashes included Matthews Mill Road, Frays Mill Road, Austin Drive, Boulders Road, Lewis and Clark Drive, and Airport Road. These intersections are the only signalized intersections along the corridor.
  - Many of the segment crashes were in close proximity to the influence area of intersections and could be related to long queues at some of the study intersections.
- Three fatal crashes occurred on the study corridor near Matthew Mill Road (2015, 2018, 2019).
  - The Stakeholders informed the study team that two of the three crashes involved pedestrians under the influence of alcohol.
  - FR-300 reports will be reviewed to gather more information.
- VDOT conducted a statewide safety needs assessment as part of the VTrans2040 Vision Plans and Needs Assessment. The safety needs assessment consisted of identifying the top intersections and segments each VDOT District based on Potential for Safety Improvements (PSI). A PSI score is the number of crashes minus the predicted for that type of intersection or roadway and the traffic volumes. The study team checked the intersections and segments identified for VDOT Culpeper District through the VTrans2040 safety needs assessment, and identified five locations along the Route 29 corridor:
  - US 29 & Frays Mill Road – District Rank 12
  - US 29 & Lewis and Clark Drive – District Rank 20
  - US 29 from Heatherton Drive to Matthews Mill Road – District Rank 90
  - US 29 form Matthews Mill Road to Deerfield Drive – District Rank 93
  - US 29 from Camelot Drive to Austin Drive – Rank 127

## Operations

The study team assessed existing intersection operations at signalized and unsignalized intersections located along the study corridor. Traffic volumes used in previous corridor studies and additional traffic volumes collected in 2021 were used to complete the operations analysis. The study team adjusted the 2021 traffic volumes to account for reduced travel during the Covid-19 pandemic.

### ***AM Peak Hour Analysis***

- Nine of the study intersections operate at a level of service (LOS) of D or better during the AM peak hour.
- The other ten study intersections operate at a LOS of E or LOS F. Most LOS E and LOS F movements are due to delay and are not near capacity.
- There is heavy southbound through traffic during the AM peak hour.
- The following intersections exceed capacity ( $v/c > 0.85$ ):
  - US 29 & Matthews Mill ( $v/c = 0.90$ )

- US 29 & Frays Mill Road ( $v/c > 1.00$ )
- US 29 & Airport Acres Road North ( $v/c = 0.89$ )
- US 29 & Airport Road ( $v/c > 1.00$ )

### ***PM Peak Hour Analysis***

- Twelve of the study intersections operate at a level of service (LOS) of D or better during the PM peak hour.
- The other seven study intersections operate at a LOS of E or LOS F. Most LOS E and LOS F movements are due to delay and are not near capacity.
- The following intersections exceed capacity ( $v/c > 0.85$ ):
  - US 29 & Frays Mill Road ( $v/c > 0.87$ )
  - US 29 & Dickerson Road ( $v/c = 0.87$ )
  - US 29 & Boulders Road ( $v/c = 0.86$ )
  - US 29 & Airport Road ( $v/c > 1.00$ )

### **Goals & Objectives**

The study team provided the stakeholders with a draft vision, goals, and objectives for Phase 2 of the Route 29 corridor study. The stakeholders will have the opportunity to review the goals and objectives and provide feedback to the study team. The study team will revise the goals and objectives before presenting them to the public in Phase 2 of the study.

### ***Vision***

- US 29 is a corridor that provides safe travel and adequate capacity for all uses and users of the roadway.

### ***Stakeholder Feedback on Vision:***

- Stakeholders generally agreed with vision for the study.

### ***Goal: Improve Safety***

- Reduce/manage vehicular conflict points
- Provide pedestrian crossing opportunities around commercial areas
- Provide separation between vehicle and bicycle/pedestrian modes

### ***Goal: Manage Congestion***

- Increase person throughput
- Evaluate best intersection control types
- Reduce travel time variability
- Make efficient use of right-of-way for all users

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**Goal: Increase Multimodal Usability and Accessibility**

- Provide bicycle facilities that connect to nearby parks
- Provide ADA accessible transit stops along corridor
- Provide safe pedestrian crossings at target intersections

**Goal: Support Future Growth**

- Develop access management strategies
- Provide transit services that offer other mode choices for commuters

*Stakeholder Feedback on Goals & Objectives:*

- Stakeholders generally agreed with the proposed goals and objectives of the study. Stakeholders recommended adding an economic development goal. Trucking and shipping operations are prominent on the corridor and these operations should be given significant consideration as the study team begins the alternative analysis process.
- The counties also noted that US 29 is an important entrance to both Albemarle County and Greene County. Therefore, the aesthetics of the corridor should be taken into consideration.
- Additionally, the stakeholders mentioned that US 29 has become a weekend commuter route. The corridor becomes congested on Friday afternoons. Though the entire corridor cannot be designed to accommodate Friday afternoon congestion, the stakeholders would like the study team to balance both local needs and regional demands.

**Next Steps**

Kylie Caviness thanked everyone for attending and reminded them that Phase 1 of the Route 29 corridor study was near its conclusion. She noted that the study team would present a scope for Phase 2 of the corridor study to VDOT, and that Phase 2 would likely kick off in mid- to late-June 2021.

Attachments: Meeting presentation, Framework Document

Cc: Stakeholders, Meeting Attendees



# US 29 Corridor Study

June 11, 2021



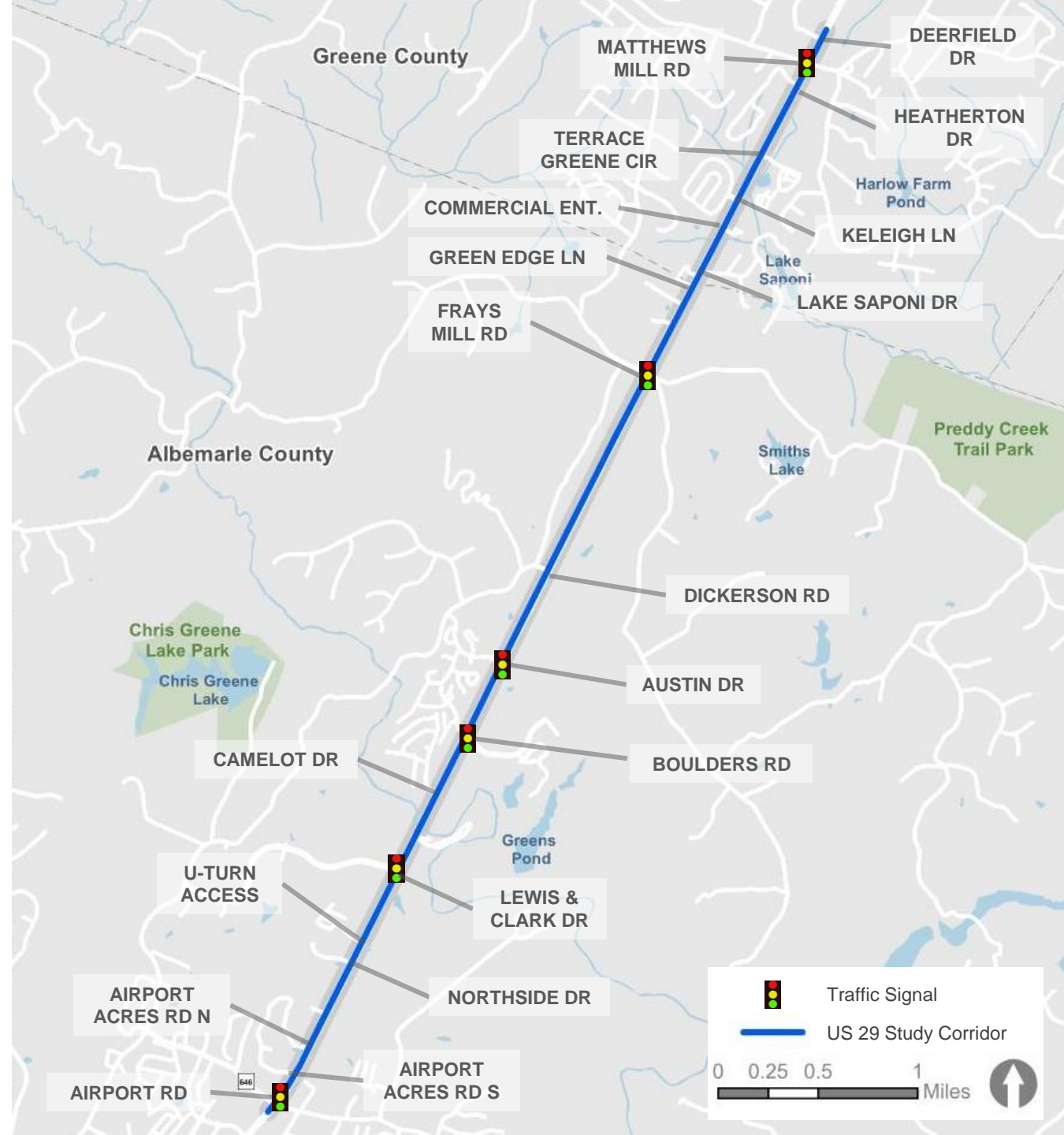
# Agenda

- Project Background and Scope
- Corridor Overview
  - Existing Characteristics
  - Planned Projects
- Crash Data
- Traffic Operations
- Goals and Objectives
- Next Steps





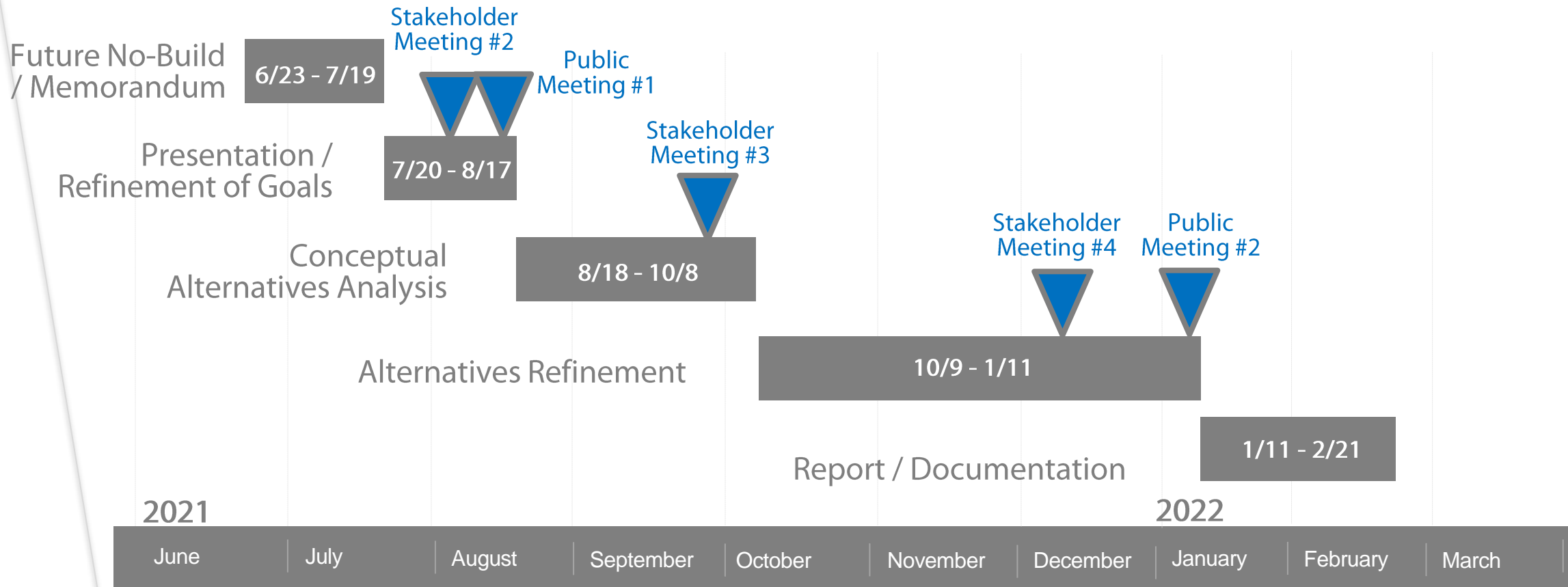
# Corridor Overview



# Phase 1 Study Schedule

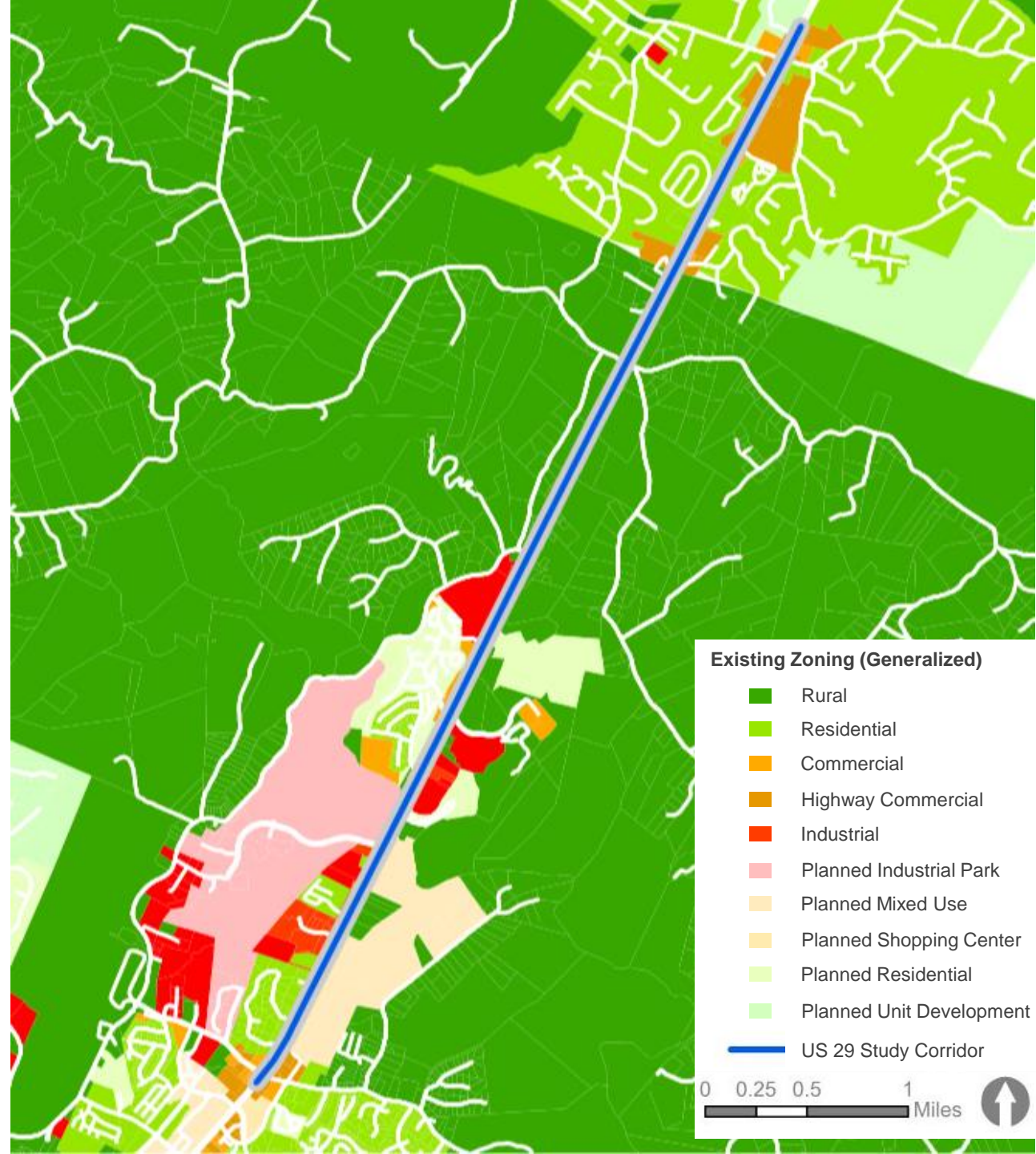


# Phase 2 Study Schedule

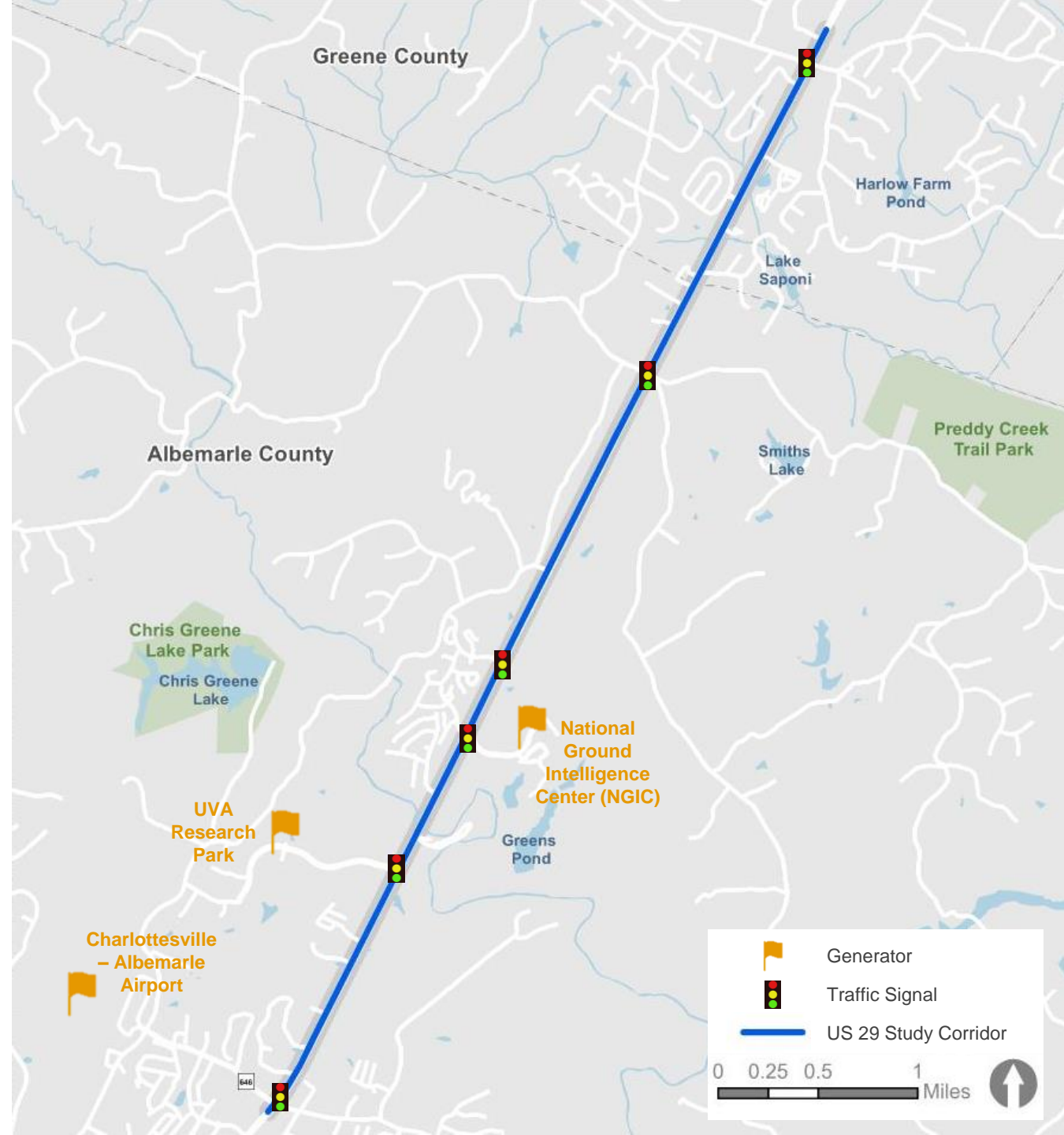


# Existing Characteristics

## Existing Zoning



# Existing Characteristics Generators






# Existing Characteristics

## Multimodal

- No pedestrian or bicycle facilities along the US 29 corridor with the exception of:
  - Airport Road (south and west approaches)
- No transit stops along the US 29 corridor

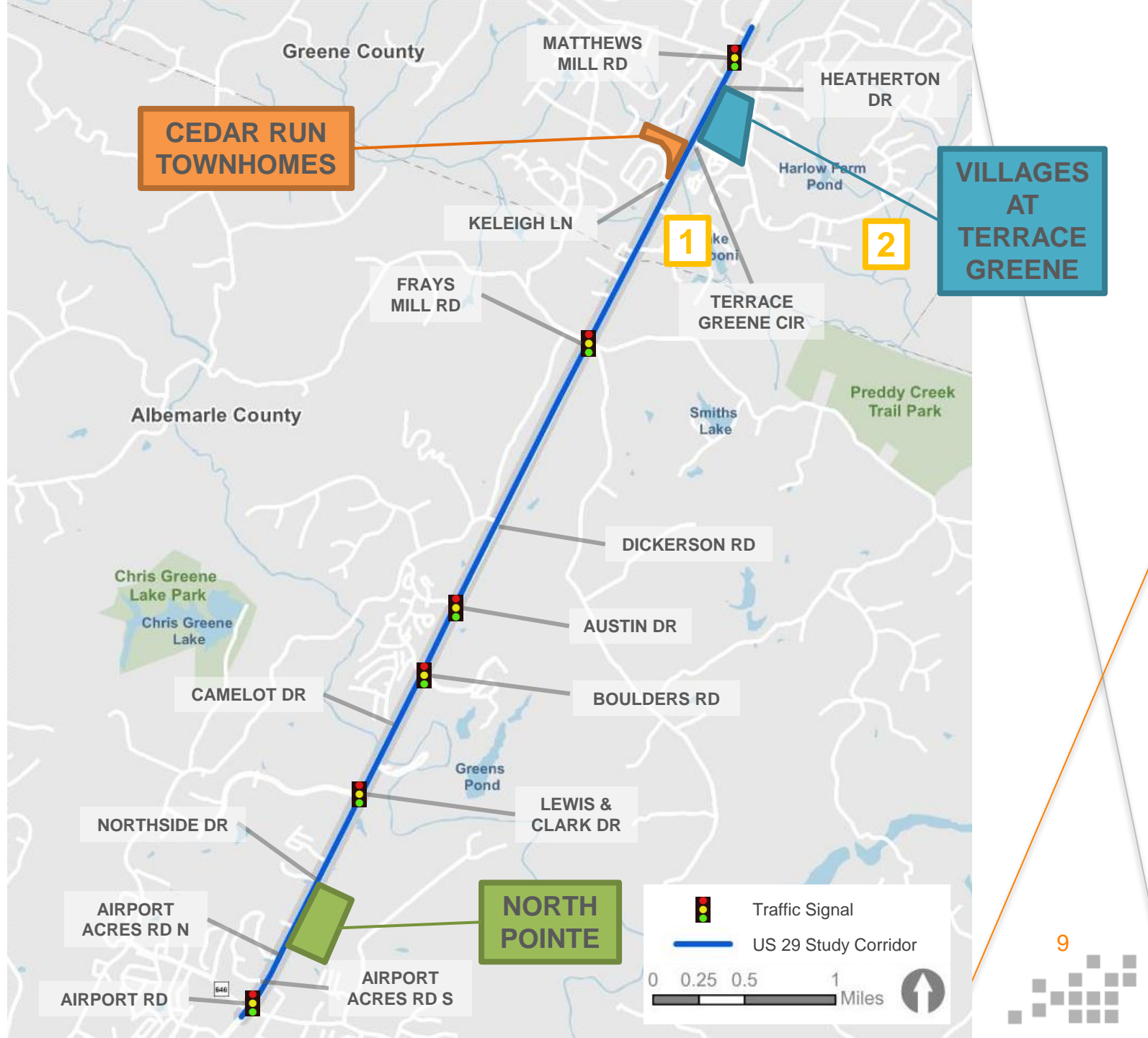


# Planned Development

-  Villages at Terrace Greene (Greene)
-  Cedar Run Townhomes (Greene)
-  North Pointe (Albemarle)

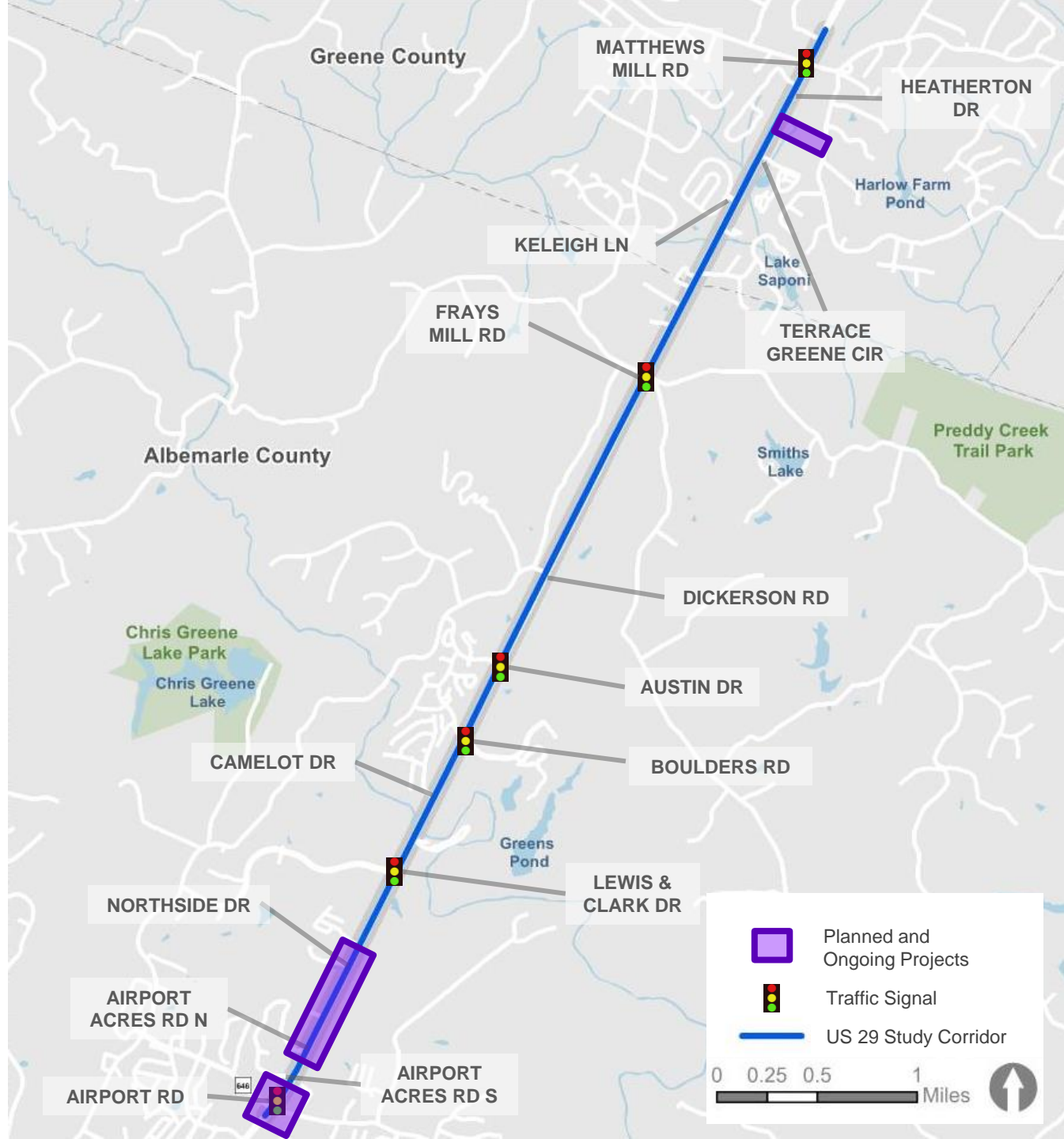
Information still needed for:

1. Creekside Development (Greene)
2. Judo Drive Development (Greene)



# Planned and Ongoing Projects

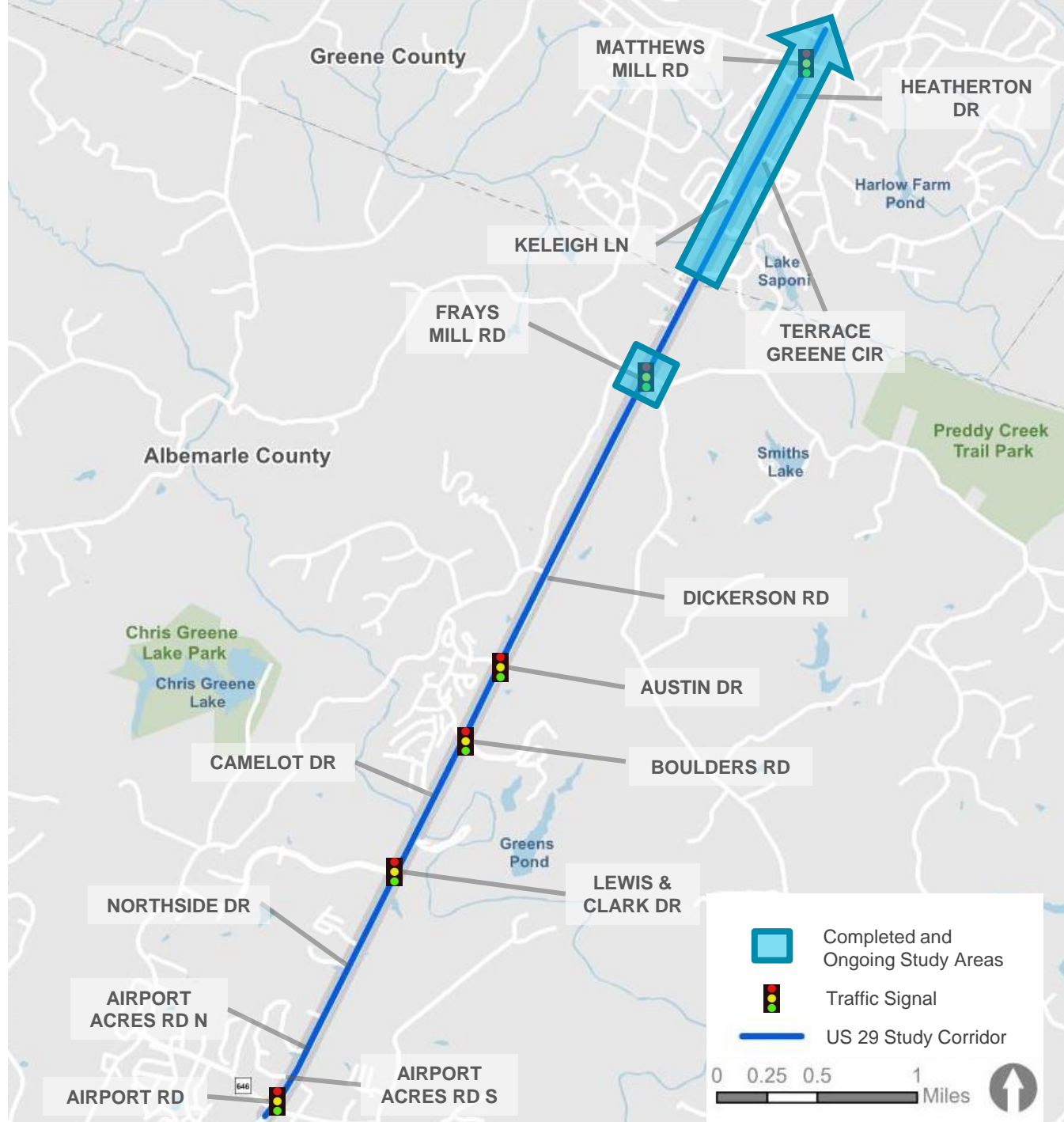
1. Constructed RCUTs
  - Northside Drive
  - Airport Acres Road N
  - U-Turn access north of Cypress Drive
2. Route 670 Connector (in design)
3. Striping improvements on Route 29 at Airport Road





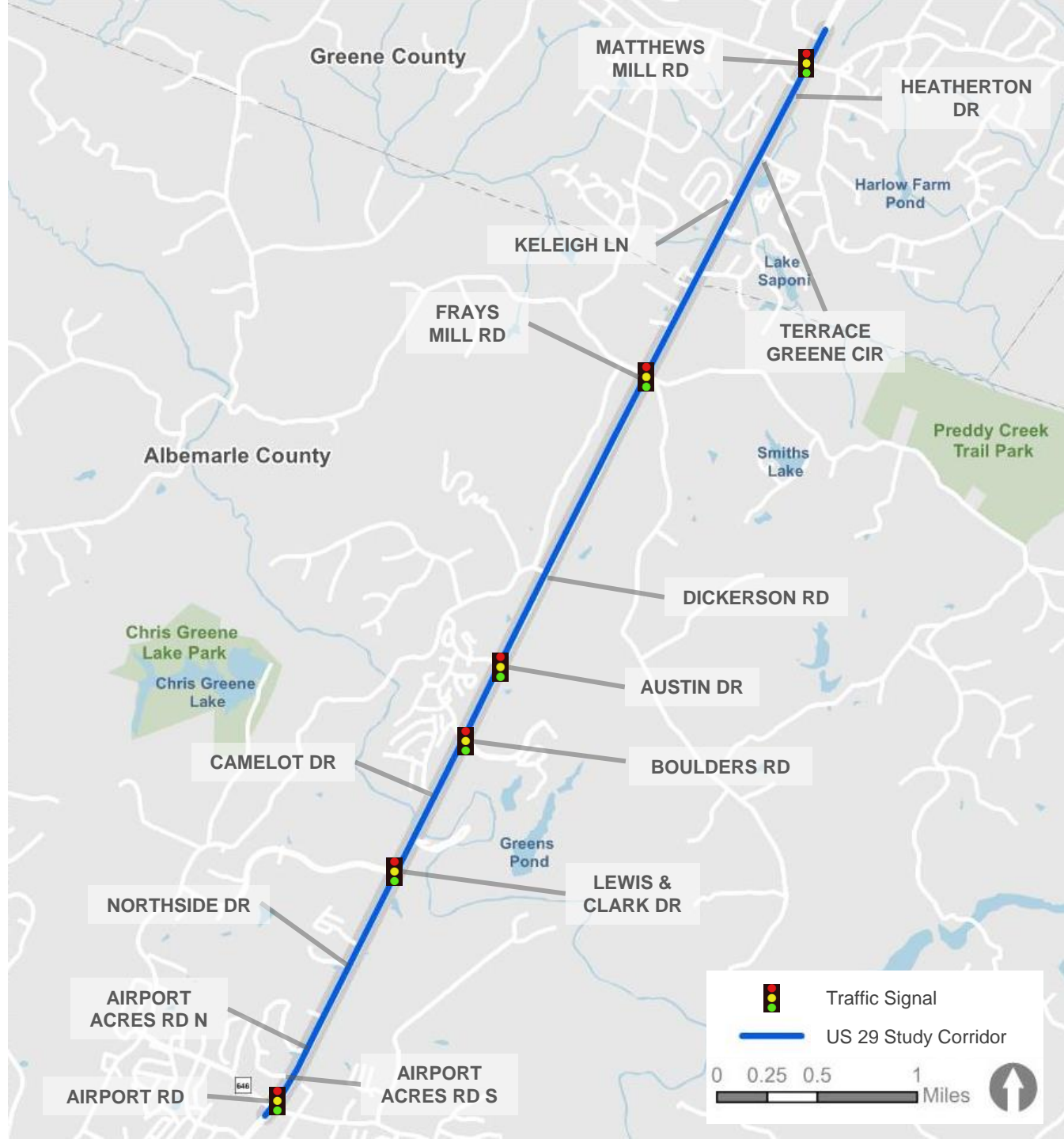
# Completed and Ongoing Studies

1. Signal Coordination Study (ongoing)
2. Frays Mill Study (2018)
3. Ruckersville Small Area Plan (2018)
4. Greene County Corridor Study (2018)
5. Greene County Comprehensive Plan Update (ongoing)
6. Local Climate Action Initiatives in Charlottesville and Albemarle County



# Transit Studies

1. Charlottesville Area Transit Feasibility Study
  - Transit Hub and Park 'n Ride
2. Regional Transit Vision Study
3. Transit Feasibility Study with Albemarle County



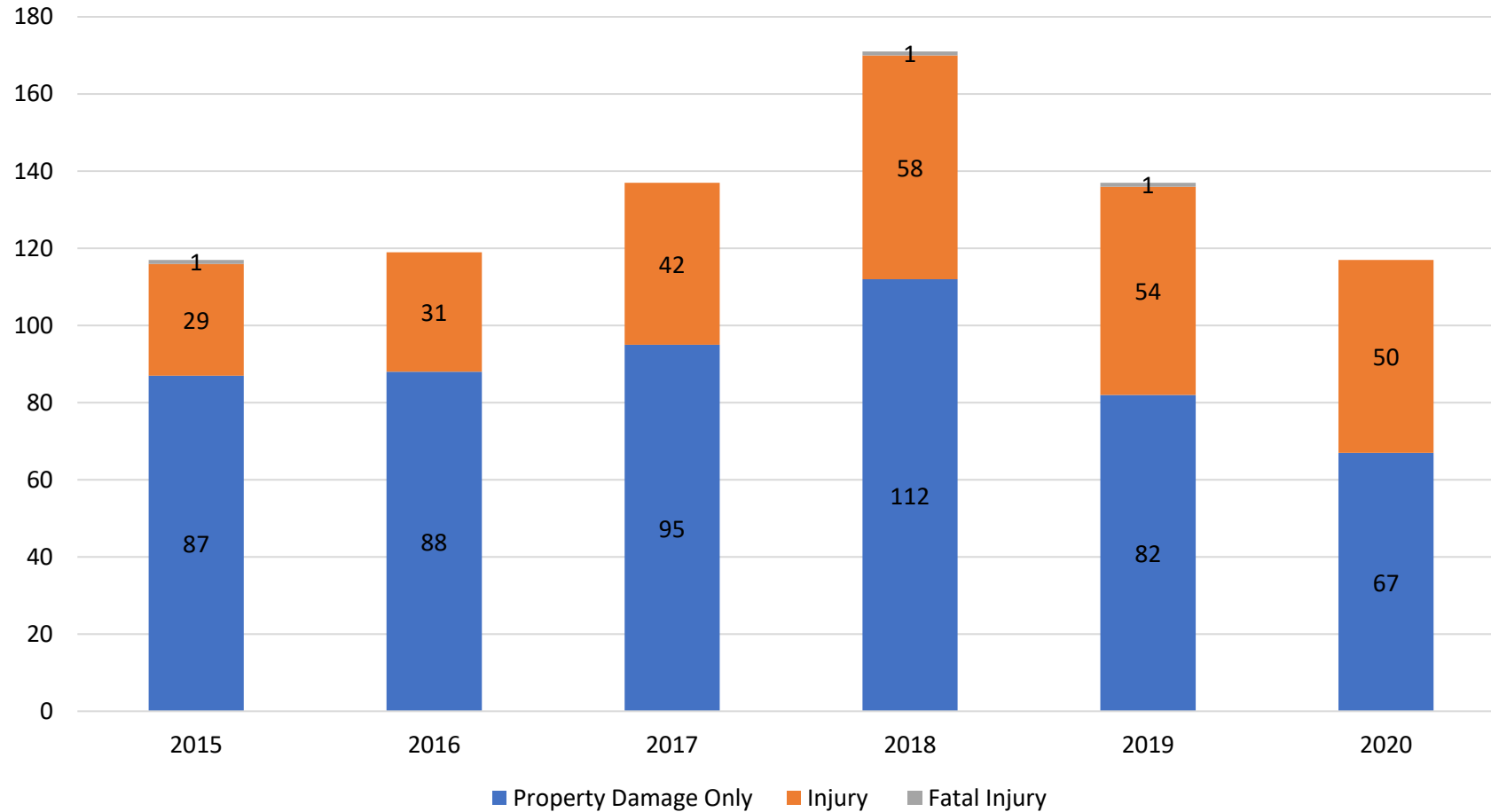
# Safety

- Crash data pulled from years 2015 to 2020
  - 798 crashes along corridor
- Top three crash types: rear end (61%), angle (11%), fixed object – off road (9%)
- Intersection crashes (485 total - 61%) outnumber segment crashes (313 total - 39%)



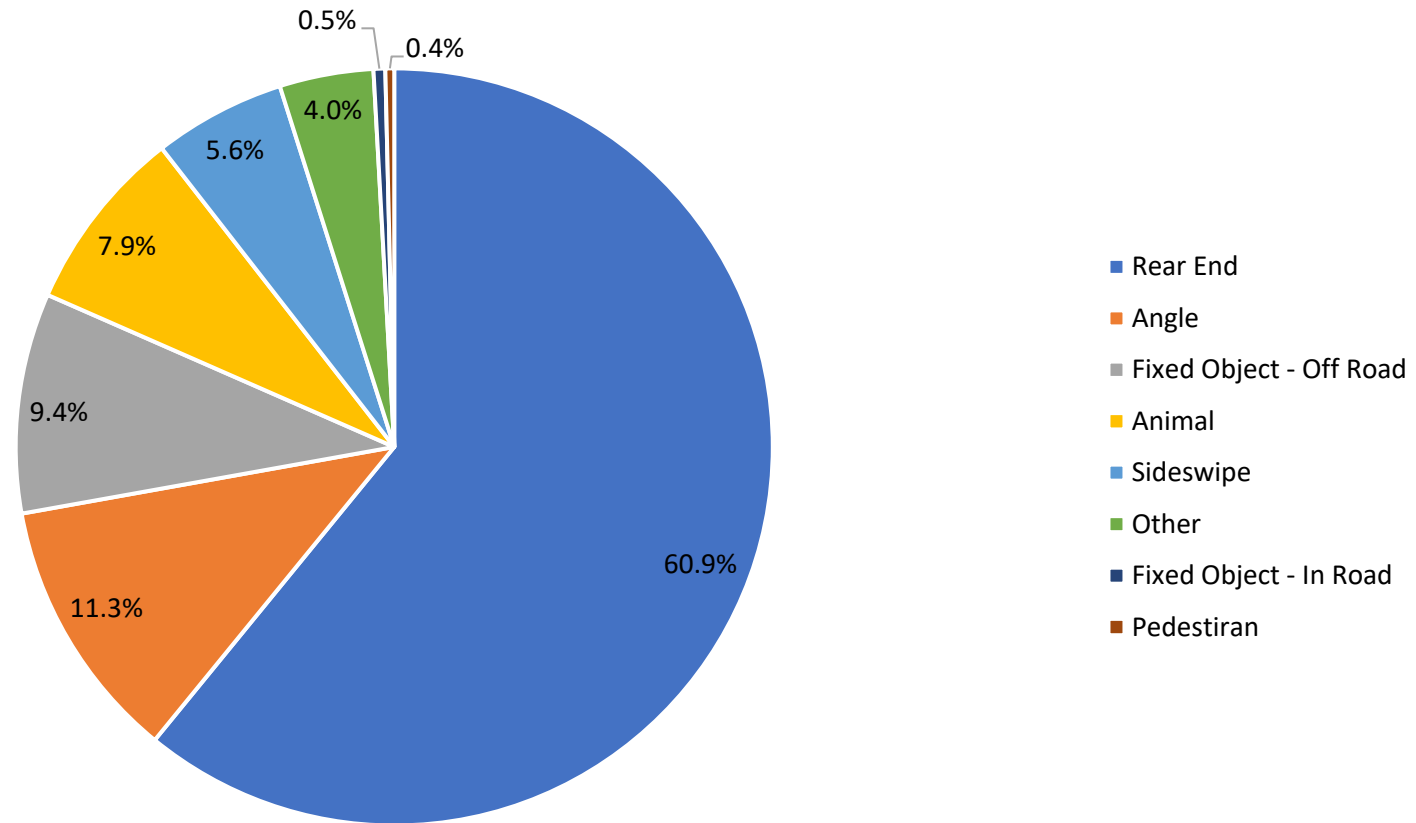
# Safety

## Crashes by Severity (2015-2020)



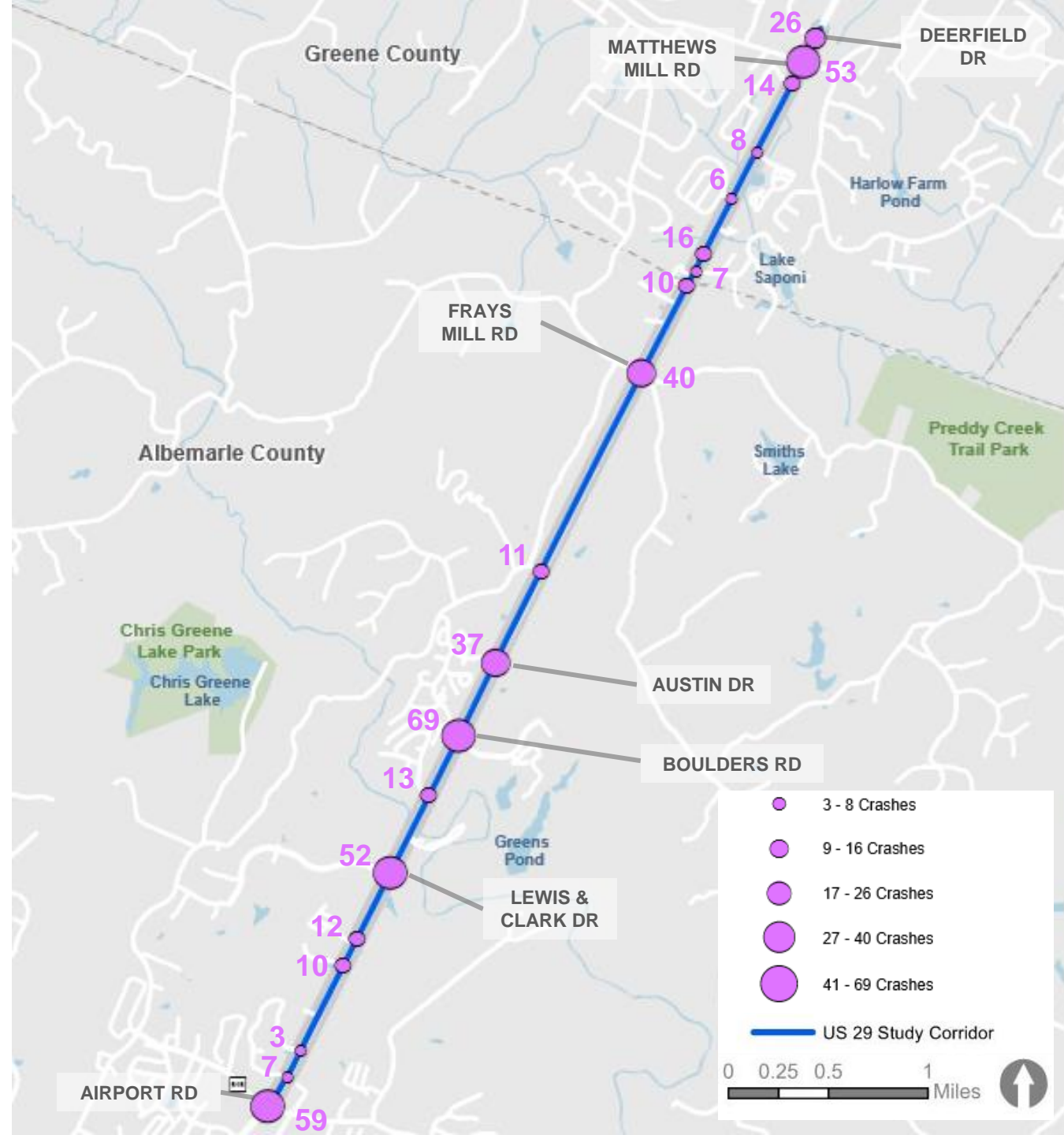
# Safety

## Crashes by Collision Type (2015-2020)



# Safety

## Study Intersection Crashes (2015-2020)



# Safety

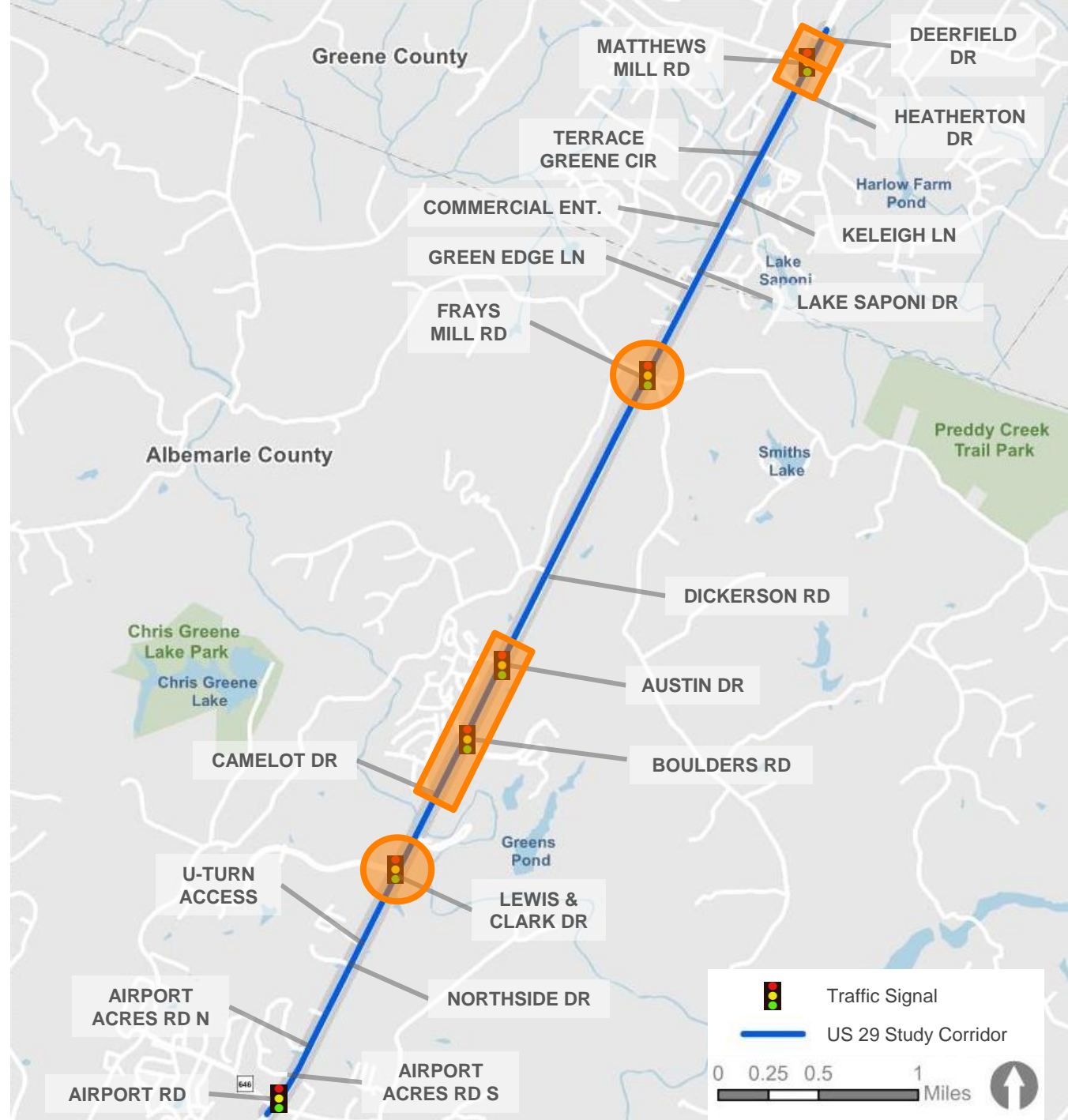
## VDOT PSI (Vtrans2040)

### District Rank by Intersection

- #12** US 29 / Frays Mill Road
- #20** US 29 / Lewis and Clark Drive

### District Rank by Segment

- #90** US 29 from Heatherton Dr to Matthews Mill Rd
- #93** US 29 from Matthews Mill Rd to Deerfield Drive
- #127** US 29 from Camelot Dr to Austin Dr

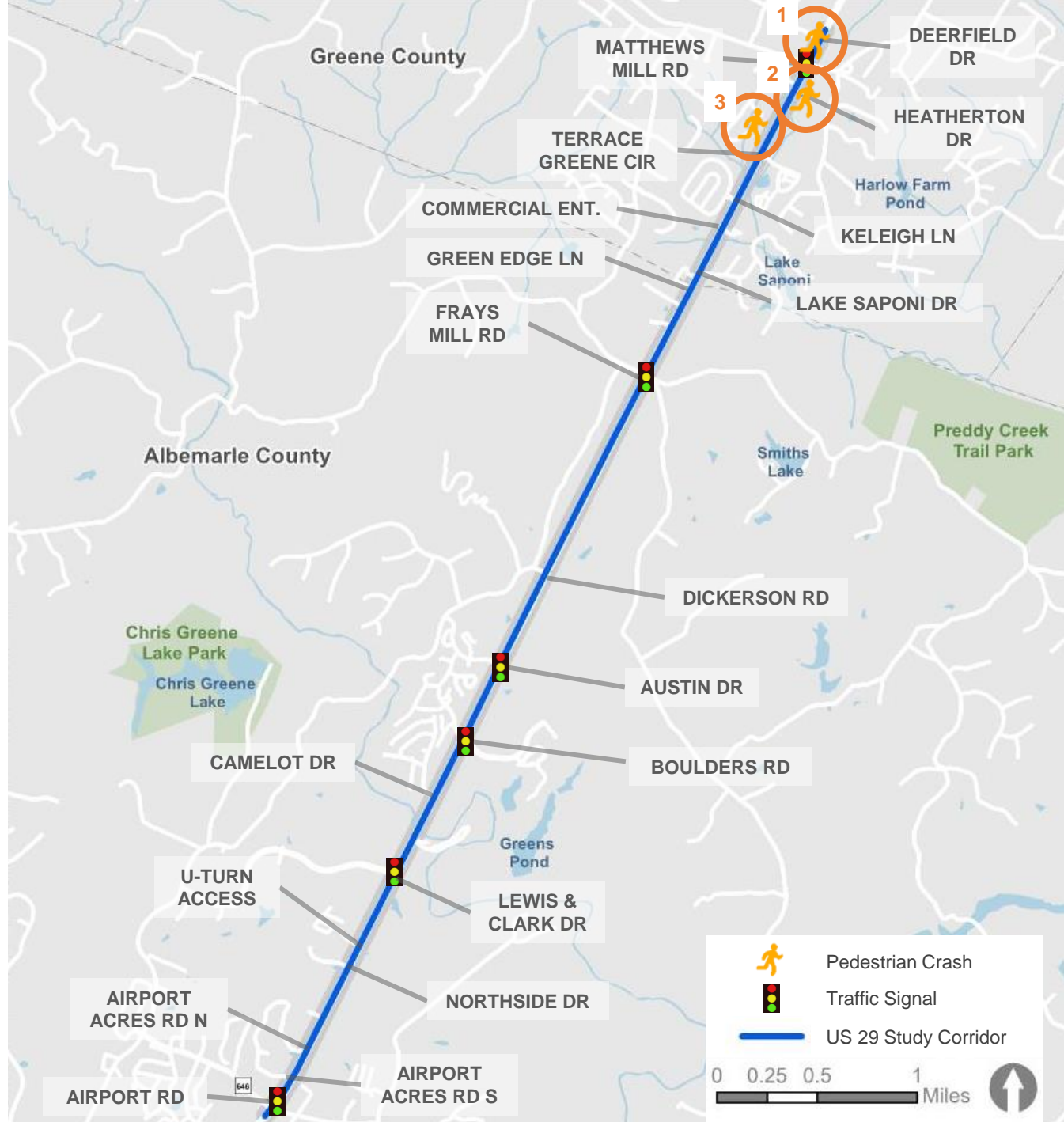


# Safety

## Pedestrian Crashes

1. Pedestrian – Fatal Injury
  - US 29 & Deerfield Drive (2015)
2. Pedestrian – Fatal Injury
  - US 29 & Heatherton Drive (2018)
3. Pedestrian – Fatal Injury
  - US 29 & Heatherton Drive (2019)

FR-300 reports are being collected for these three crashes to gather more information.



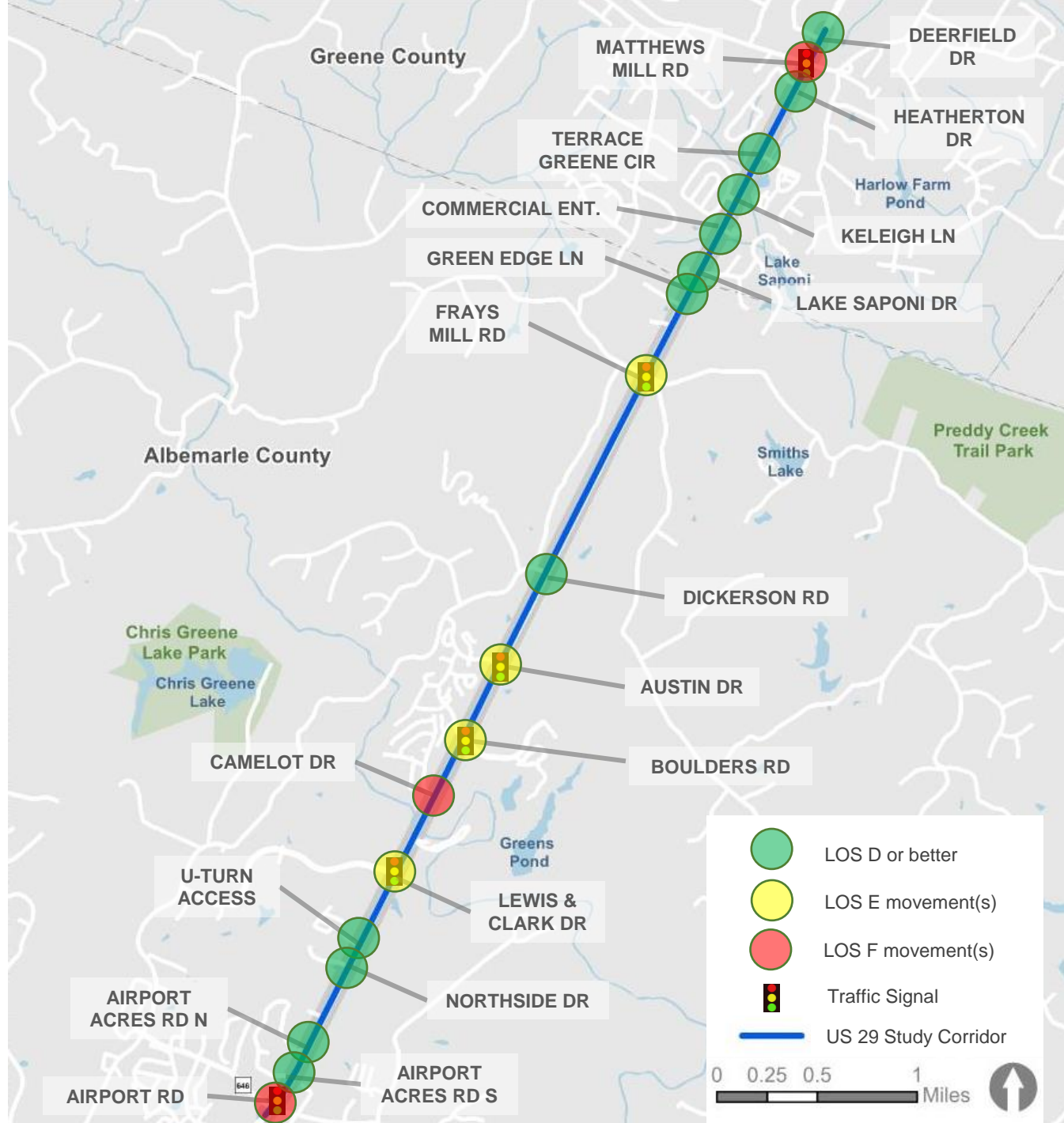




# Traffic Operations

## PM Peak Hour

1. Most LOS E and LOS F movements are due to delay and are not near capacity
2. Four intersections over capacity
  - US 29/Frays Mill Rd slightly over capacity:  $v/c > 0.87$
  - US 29/Dickerson Rd slightly over capacity:  $v/c = 0.87$  (NBT)
  - US 29/Boulders Rd slightly over capacity:  $v/c = 0.86$
  - US 29/Airport Rd over capacity:  $v/c > 1.00$



# Intersection & Segment Trends

- **Matthews Mill Road** (and surrounding area)
  - Approaches at or near capacity
  - Only pedestrian crashes, all of which were fatal
  - Listed as VTrans PSI Segment from Heatherton Drive to Deerfield Drive (District Ranks: 90, 93)
- **Frays Mill Road** – *study completed 2018*
  - Approaches at or near capacity
  - Listed as VTrans PSI Intersection (District Rank: 12)
- **Austin Drive to Camelot Drive**
  - Intersection of Camelot Drive: approaches at or near capacity
  - Listed as VTrans PSI Intersection (District Rank: 127)
  - 64% of crashes were rear-end crashes along segment



## Vision

**US 29 is a corridor that provides safe travel and adequate capacity for all uses and users of the roadway.**



# Goals And Objectives

**Goal:**  
**Improve Safety**

## Objectives

- Reduce/manage vehicular conflict points
- Provide pedestrian crossing opportunities around commercial areas
- Provide separation between vehicle and bike/ped modes



# Goals And Objectives

**Goal:**  
**Manage**  
**Congestion**

## Objectives

- Increase person throughput capacity
- Evaluate best intersection control types
- Reduce travel time variability
- Make efficient use of right-of-way for all users



# Goals And Objectives

## Goal:

**Increase  
Multimodal  
Usability and  
Accessibility**

## Objectives

- Provide bicycle facilities that connect to nearby parks
- Provide ADA accessible transit stops along corridor
- Provide safe pedestrian crossings at target intersections



# Goals And Objectives

## Goal:

**Support Future Growth**

## Objectives

- Develop access management strategies
- Provide transit services that offer another mode choice for commuters





# Next Steps

- Please send along all relatable studies, developments, site plans, etc. by next Friday, June 18<sup>th</sup>.
- Kittelson will be sending along a Framework Plan with the meeting minutes in a few days acknowledging all that has been discussed today.
- Stakeholder Meeting #2 – aim for mid-late July.
  - Any schedule conflicts to avoid?
  - Will be discussing future no-build conditions, goal refinement, and public workshop preparation



**Thank You!**

## MEMORANDUM - DRAFT

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Date: June 15, 2021 Project #: 21605.046

To: Charles Proctor, Virginia Department of Transportation

From: Chris Tiesler PE, Andrew Butsick PE, Kylie Caviness, & Kaitlyn Schaffer – Kittelson & Associates, Inc.

Project: US 29 Corridor Study – Albemarle County and Greene County

Subject: Framework Document

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### INTRODUCTION

This document outlines the framework of the US 29 Corridor Study (Albemarle County and Greene County) and requests agreement on your roles and responsibilities during the study process. US 29 north of Charlottesville continues to experience growth and as such has experienced increasing safety and operational challenges. The purpose of the study is to identify and vet potential operational and safety improvements along US 29 north of Charlottesville in Albemarle County and Greene County.

### Study Area

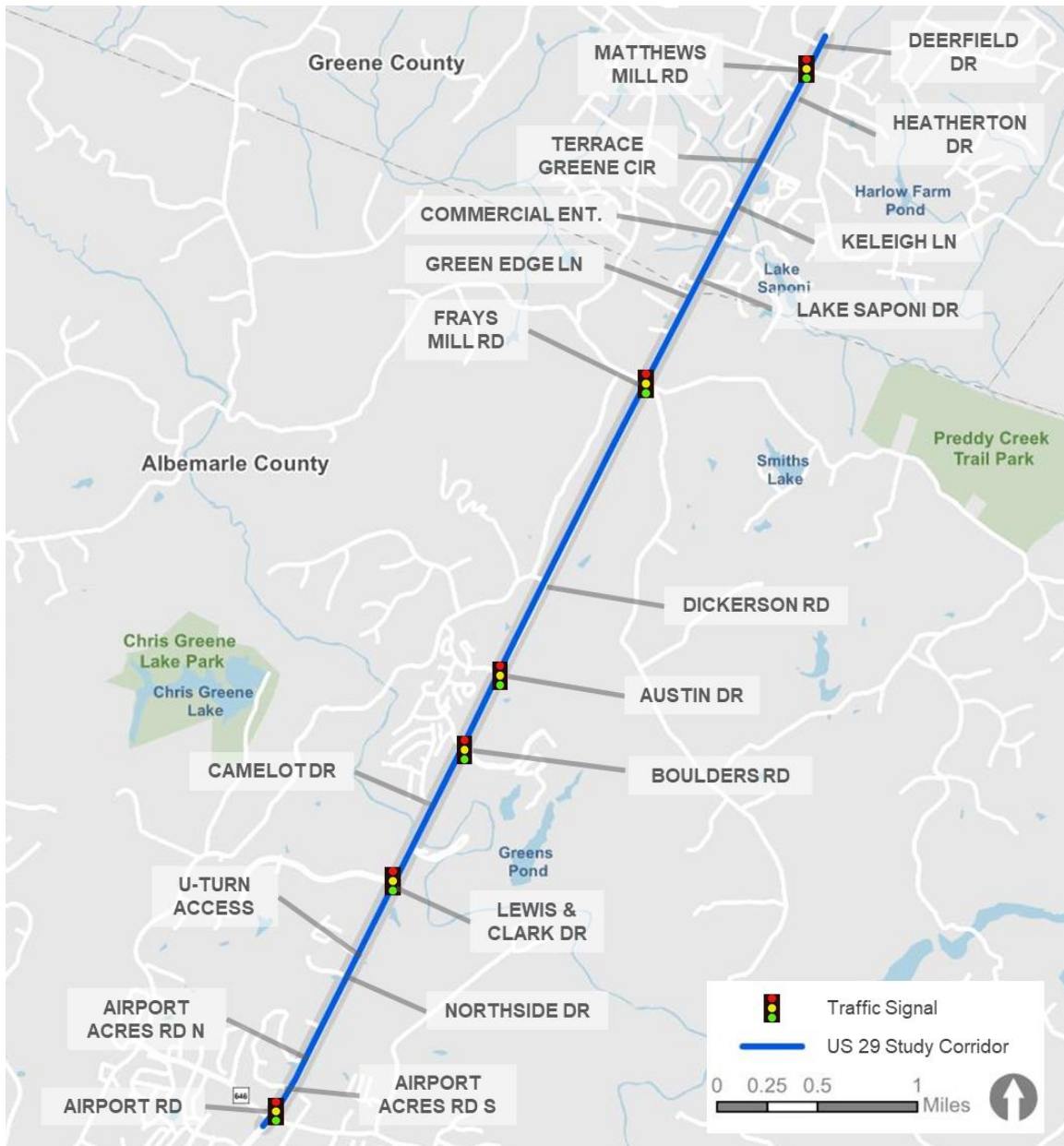
This study of US 29 includes the section between Route 649 (Airport Road) in Albemarle County and Deerfield Drive in Greene County. **Figure 1** illustrates the extents of the study area.

### Stakeholders

The project team will communicate with key stakeholders throughout the study as described in the subsequent sections. Key project deliverables will be circulated for review with members of the stakeholder group. The stakeholders identified for the study include:

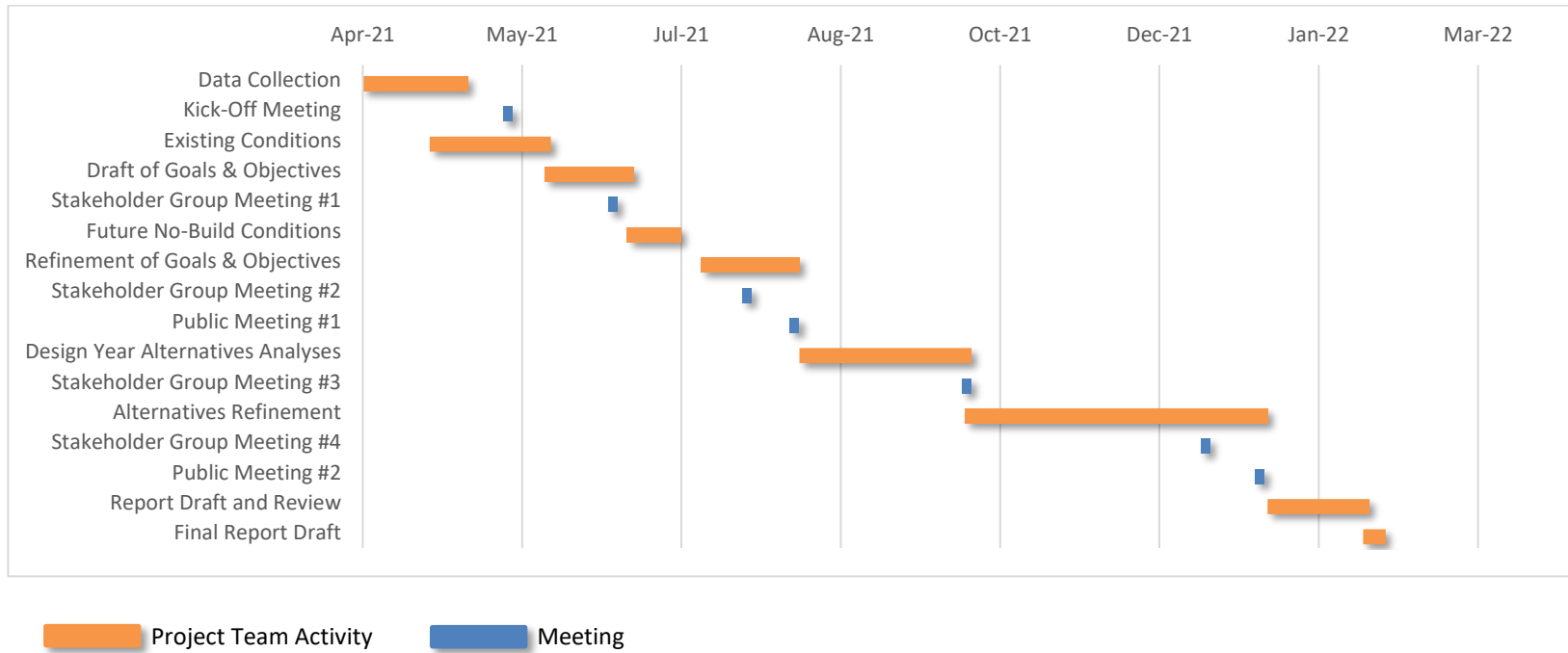
- Virginia Department of Transportation (VDOT)
- Albemarle County
- Greene County
- Thomas Jefferson Planning District Commission (TJPDC)
- Transit Agencies: Jaunt and Charlottesville Area Transit (CAT)

Figure 1. US 29 Study Extents



## PROJECT SCOPE SUMMARY

Figure 2 illustrates the proposed schedule for the remaining activities for the project. Each activity and the assumed responsibilities of each of the stakeholders is described subsequently.



**Figure 2. Anticipated Activities and Timeline**

## Data Collection

The on-going data collection task involves coordination between the project team and the stakeholder group to collect all relevant information for the analysis of existing and design year conditions. This includes, but is not limited to:

- The most recent 6-years of crash data [**VDOT**]
- Existing traffic signal timing [**VDOT**]
- Known in-process developments (public and private) [**VDOT, County, and TJPDC**]
- Anticipated/planned roadway improvement projects [**VDOT, County, and TJPDC**]
- Relevant turning movement count/traffic data [**VDOT and County**]
- Two-hour weekday a.m. and weekday p.m. peak hour traffic counts at 13 of the 19 study intersections [**Project team**]

## Existing Conditions

The project team kicked off the study on May 18, 2021, with a meeting involving VDOT and TJPDC. The study will evaluate the existing safety and operational performance of the corridor as discussed below:

### *Operational Analyses*

The existing weekday a.m. and weekday p.m. peak hour operational conditions will be evaluated using Synchro 10 and SimTraffic (where intersections are shown to operate above capacity) at the following 19 intersections:

- Rte. 29 @ Commercial Crossover (Deerfield Dr)
- Rte. 29 @ Matthew Mills (607)
- Rte. 29 @ Heatherton Dr.
- Rte. 29 @ Terrace Greene Cir.
- Rte. 29 @ Frays Mill Rd. (641)
- Rte. 29 @ Keleigh Ln.
- Rte. 29 @ Commercial Entrance
- Rte. 29 @ Lake Saponi Dr.
- Rte. 29 @ Greene Edge Ln.
- Rte. 29 @ Dickerson Rd.
- Rte. 29 @ Austin Dr.
- Rte. 29 @ Boulders Rd. / Briarwood Dr.
- Rte. 29 @ Camelot Dr. (1513)
- Rte. 29 @ Lewis and Clark Dr.
- Rte. 29 @ U-Turn Access

- Rte. 29 @ Northside Dr.
- Rte. 29 @ Airport Acres N.
- Rte. 29 @ Airport Acres S.
- Rte. 29 @ Airport Rd. (649)

Measures of effectiveness for intersection operations will include level-of-service, control delay, and queue lengths. Summary graphics will be developed and shared with the stakeholders for review.

### ***Safety Analyses***

The project team will review the six most-recent years (2015-2020) of crash data obtained to identify crash patterns and high crash locations. Summary graphics (e.g., crash heat maps) will be developed for distribution to the stakeholder group.

### ***Field Review***

After completion of the operational and safety analyses as described above, the project team will conduct a field review of the corridor to confirm the findings and identify potential mitigation measures.

### **Draft of Goals & Objectives**

After completion of the existing conditions analyses, draft study goals and associated objectives are to be developed.

### ***Stakeholder Group Meeting #1 – Existing Conditions and Goals & Objectives***

The purpose of this stakeholder group meeting is to share and discuss initial findings, provide input on draft study goals, and receive information about projects within the study area.

### **Future Year No-Build Conditions**

This task involves the development of future year land uses and traffic projections to be assumed in the Design Year Analyses. Assumptions include:

- Design Year
  - 2045
- Traffic Growth
  - Growth in traffic volumes between existing conditions and the design year will be developed by integrating information from various planned developments in the study area.

## Refinement of Goals & Objectives

This task involves working with the stakeholder group to refine the vision, goals, and objectives developed in Phase 1.

### ***Stakeholder Group Meeting #2 – Future No-Build Conditions and Public Meeting Preparation***

The meeting will include a presentation of the existing and future no-build conditions and allow for refinement of goals and objectives. The meeting will also include discussion/preparation for the first Public Meeting.

### **Public Meeting #1**

An initial public meeting will be held after completion of the existing conditions analyses to inform the public of identified issues/concerns and discuss the draft goals/objectives of the study. Each of the stakeholder groups will conduct outreach to the public to advertise the meeting and will work together to identify an appropriate time/location to conduct the meeting. Once public input has been received, goals/objectives of the project will be finalized.

## Design Year Alternatives Analyses

After receiving concurrence from the stakeholders on the projected traffic volumes and assumed transportation improvements, the project team will evaluate forecast design year operations along the study corridor. The project team will assume updates to the existing signal timing in future year analyses in accordance with VDOT's *Traffic Operations and Safety Analysis Manual* (TOSAM) guidelines. Preliminary recommendations will be developed in annotated graphical format and circulated to the stakeholder group for subsequent discussions.

### ***Stakeholder Group Meeting #3 –Design Year Alternatives Analysis***

The purpose of this stakeholder group meeting is to present and discuss preliminary alternatives, including an opportunity to provide feedback and comments regarding any of the desired alternatives and recommendations, as well as a discussion on implementing short-, mid-, and long-term options.

## Alternatives Refinement

Based on the existing/design year analyses, field observations, and input from the stakeholder group, strategies and alternatives will be identified to address operational, safety, and access management deficiencies. Concepts will be developed and refined for the selected improvements.



### **Stakeholder Group Meeting #4 – Review Alternatives and Recommendations**

The project team will share the draft alternatives and recommendations with the stakeholder group, as well as prepare for the second Public Meeting.

### **Public Meeting #2**

A second public meeting will be held to inform the public on the proposed alternatives. Each of the stakeholder groups will conduct outreach to the public to advertise the meeting and will work together to identify an appropriate time/location to conduct the meeting.

### **Report Draft and Review**

After receiving feedback from the stakeholder group on the proposed alternatives, the project team will develop a draft report summarizing all the efforts/analysis to date. The stakeholder group will review the draft report submitted by the project team and provide comments/feedback for revisions.

### **Final Report Draft**

The project team will revise the draft report into final form based on comments/feedback from the stakeholder group.

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