# EXISTING CONDITIONS

## What is the Lancasater County Existing Conditions Report?

Created as a part of the ongoing development of the Lancasater County Safety Action Plan, the Lancaster County Existing Conditions Report is a foundational assessment of the existing characteristics, physical conditions, and socio-demographic trends related to transportation safety in the community. The intent of this document is to showcase the need for further investment in transportation safety in Lancaster County.







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## INTRODUCTION





#### INTRODUCTION

#### **Data Sources**

The Existing Conditions Report isn't a full accounting of all available data, but showcases the information and trends most relevant for identifying safety needs in Lancaster County.

This report uses a variety of data source to provide context to the state of transportation safety in Lancaster. Most of the source used to acquire data are listed and described below.

#### US CENSUS AMERICAN COMMUNITY SURVEY (ACS)

The ACS is an ongoing survey conducted by the US Census Bureau to collect detailed population and housing data on a yearly basis down to the block group level.

#### SCDOT CRASH DATA

The South Carolina Department of Transportation (SCDOT) maintains crash data for incidents in all regions of the state including Lancaster County. SCDOT provided data on crashes in Lancaster over the past five years with detailed information on the type of crash, location, and cause of incident.

#### LANCASTER COUNTY

Lancaster County maintains a database of key regional information within their GIS department. The county also publishes past studies and plans conducted for the area to the public. Both GIS and study data is incorporated into this report.

#### **RFATS**

The Rock Hill-Fort Mill Area Transportation Study (RFATS) is a regional organization that produces a Long Range Transportation Plan as well as other plans for the region. The panhandle of Lancaster County falls within the study boundary for RFATS.

#### FEMA'S NATIONAL FLOOD HAZARD LAYER

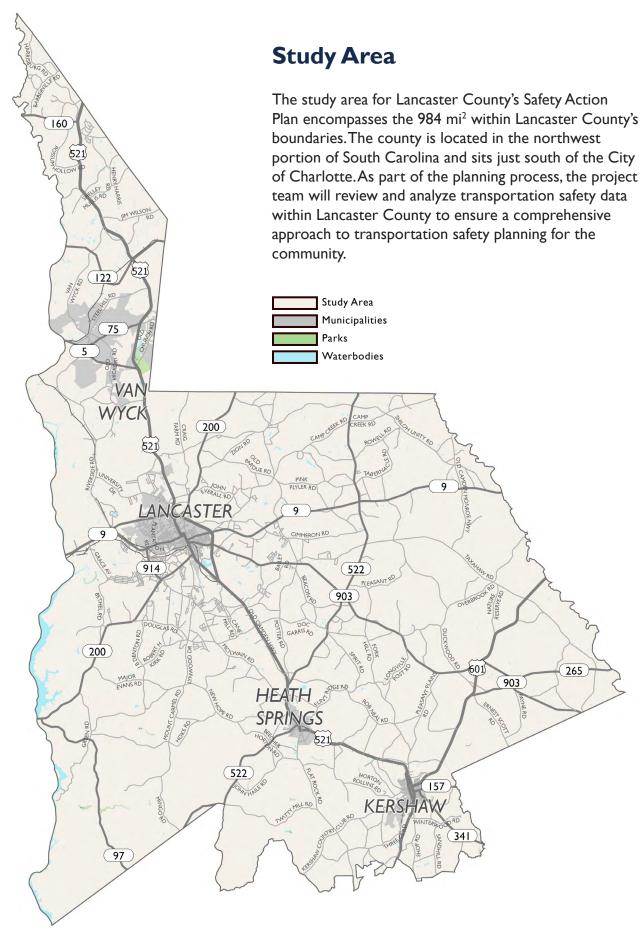
The Federal Emergency Management Agency (FEMA) maintains a geospatial database that contains flood hazard data for the entire country. This information can be used to understand flood risk in Lancaster Country.

#### CAROLINA THREAD TRAIL MASTER PLAN

The Carolina Thread Trail Master Plan outlines the development of a network of trails to link county residents and visitors to sites and destinations throughout Lancaster County.









## COMMUNITY CONDITIONS





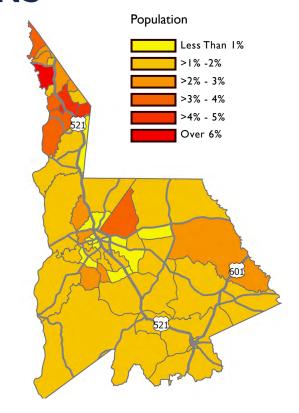
#### **COMMUNITY CONDITIONS**

#### **Population**

Lancaster County has a total population of 115,197 residents. As shown in the figure to the right, the highest density of residents can be found in the northern panhandle of the county and around the City of Lancaster. The concentration of residents in the northern panhandle of the county is likely due to the county's proximity to the City of Charlotte.

Over the last 5 years, the population of Lancaster has grown by roughly 18,500 residents.

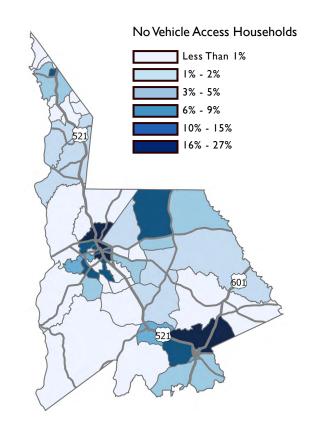
Over the next 5 years, the population is expected to increase an additional 14,000



#### **Vehicle Access**

The figure to the right shows the percentage of households in Lancaster County without access to a vehicle. The areas of Lancaster with the highest percentage of households without a car are concentrated around the cities of Lancaster and Kershaw. The percentage of households without vehicle access also increases in the eastern and northern portions of the county.

Southeast Kershaw had the highest percentage of households without a vehicle at 27%.





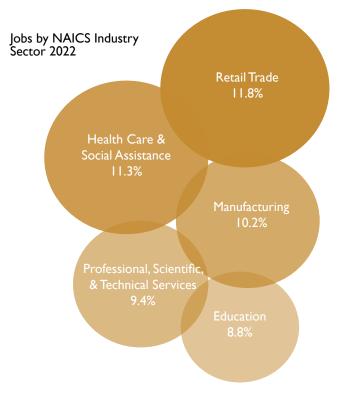


#### **Employment**

The graphic to the right displays the top 5 industries that are found in Lancaster County. Retail trade is the most prominent at 11.8%.

Other prominent industries found in the county include health care (11.3%), manufacturing (10.2%), professional, scientific & technical services (9.4%), and education (8.8%).

Most jobs are concentrated around the city of Lancaster and in the northern panhandle.



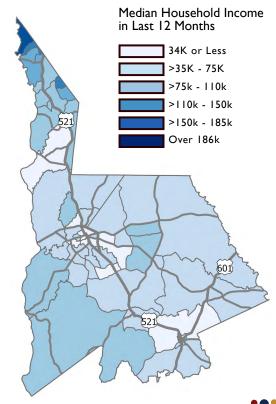
Source: U.S. Census Bureau, OnTheMap Application, https://onthemap.ces.census.gov

#### **Household Income**

The map to the right shows the median household income in Lancaster County over the last 12 months. The highest median household income in the county can be found at the northern end of the county's panhandle.

The lowest median household income areas in the county can be found near the City of Lancaster and the City of Kershaw in central and southern Lancaster County.

The average median household income in Lancaster County is roughly \$67,000.

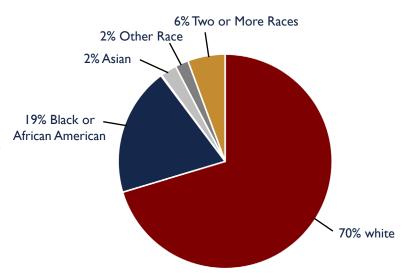






#### **Racial Distribution**

Data from the American Community Survey (ACS) was taken to create the figure to the right. As shown in the figure, Lancaster County's racial breakdown is predominately White at roughly 70% of residents. The next largest racial group is Black or African American at an estimate of 19% of residents. These two groups combine make up 89-90% of the population within the county. The remaining 10-11% is captured under the groups of two or more races (6%), Asian (2%), and other (2%).



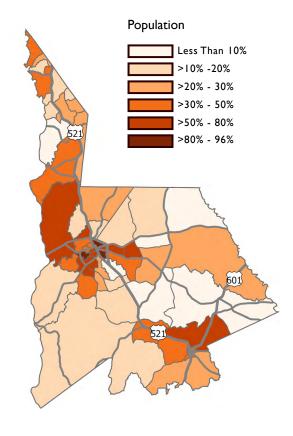
Numbers sourced from 2023 ACS 5-year estimates by block group.

#### **Minority Population**

The minority population of Lancaster County is concentrated around the city of Lancaster, the city of Kershaw, and within the northern panhandle of the county. The lowest minority percentage is found in the eastern and western areas of the county.

The City of Lancaster has an average minority population of 61%.

The City of Kershaw has an average minority population of 33%.







#### **Commuting**

The graphic to the right shows the commuting pattern of the workers commuting into Lancaster County, the workers who live and work within the county, and the workers who commute outside of the county to work. Most residents of Lancaster commute outside of the county to work at 50,619. This is likely due to being so close to the City of Charlotte in North Carolina.

While 50,619 workers leave the county to work every day, 33,707 residents work within the county and an additional 37, 242 workers commute into the county to work.

The average commute time in Lancasater County was 28-35 minutes.

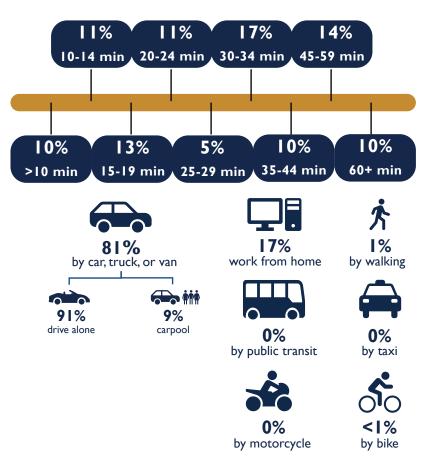


#### **Travel Time & Mode**

The graphic to the right displays the time spent commuting for residents of Lancaster. 17% of residents commute between 30-34 minutes and 14% of residents commute between 45-59 minutes every day.

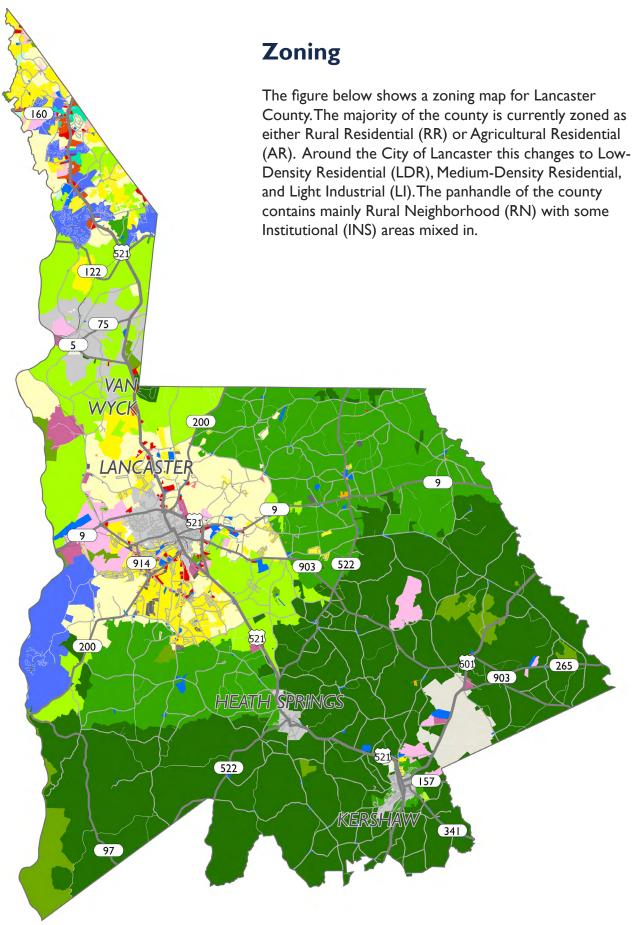
81% of workers within Lancaster County commute to work via car, truck, or van. 17% work from home and thus do no not commute while less than 1% of workers commute via bike or by walking.

Lancaster does offer public transportation through the Lancaster Area Ride Service (LARS) program despite 0% of commuters using public transit to get to work.



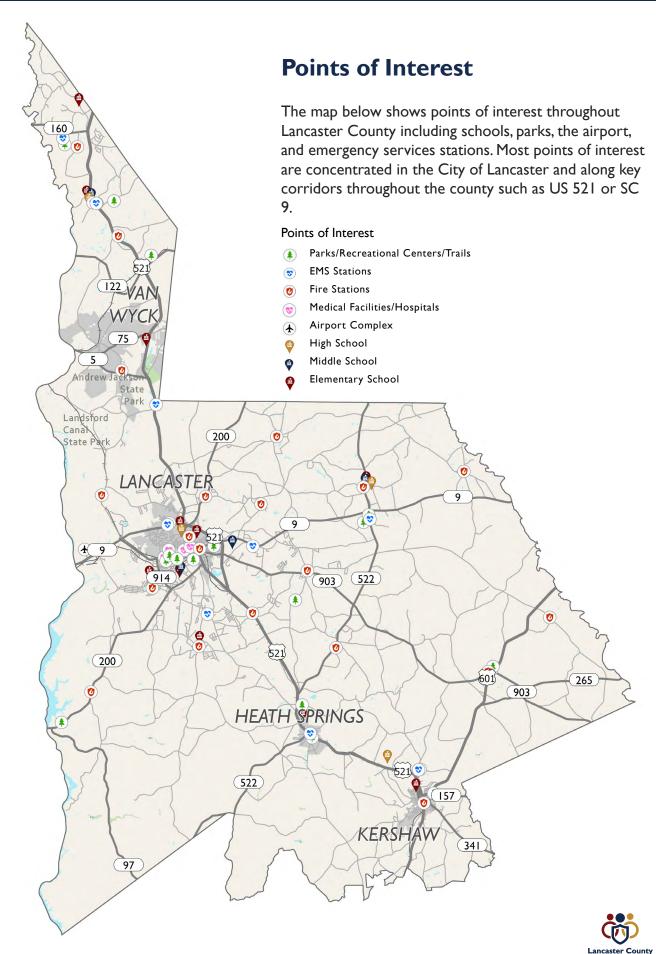










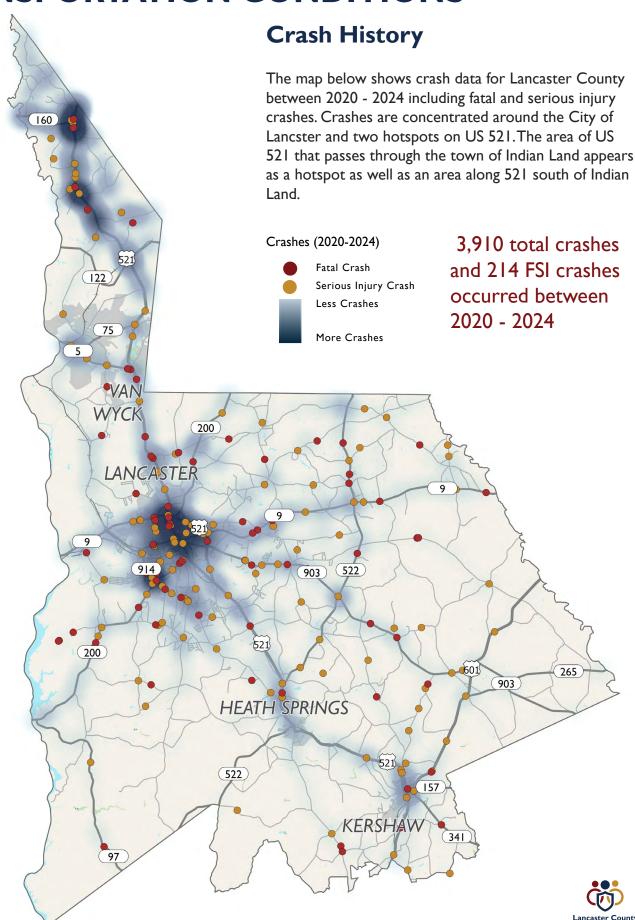


## TRANSPORTATION CONDITIONS





#### TRANSPORTATION CONDITIONS



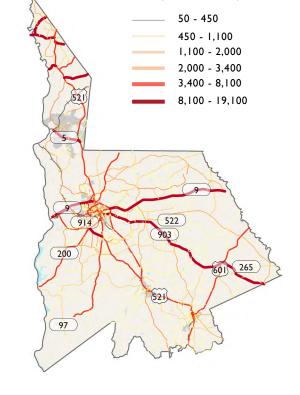


#### **Traffic Volumes**

The figure to the right displays average annual daily traffic volumes in Lancaster County. There are multiple segments throughout the county with daily traffic above 8,100 but the only two roads that fall within this criteria are SC 9 and SC 903.

SC 9 has segments with volumes up to 12,000 vehicles per day and SC 903 has segments with volumes up to 12,200 vehicles per day.

The roadway with the highest AADT is Rock Hill Hwy (SC 5) with a segment with volumes up to 19,100 vehicles per day.

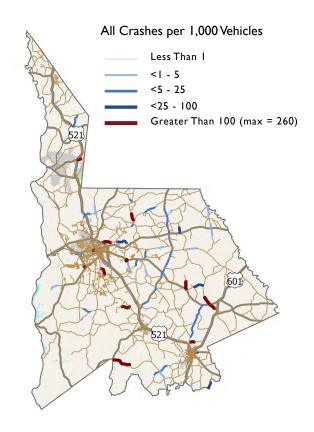


Average Annual Daily Volume

#### All Crashes by Volume

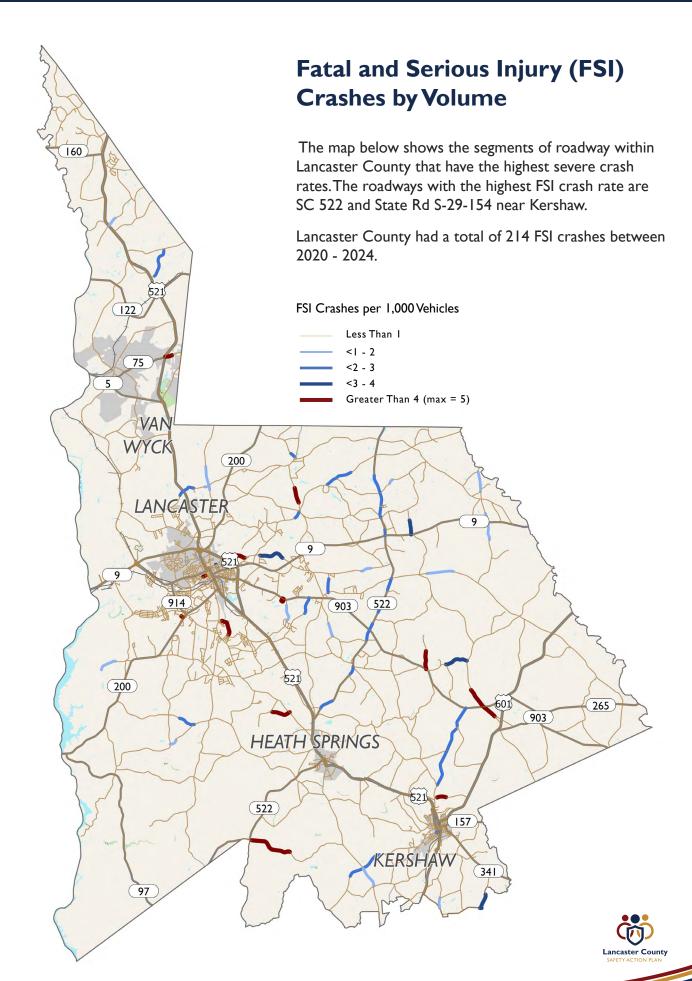
The figure to the right displays roadway segments that have the highest crash rates in Lancaster County. SC 522 and State Rd S-29-154 are the only roadways that have crash rates above 25 per 1,000 vehicles for most of the roadway's length.

The roadway segements with the highest overall crash rates are where Plantation road intersects with W Meeting St and where Camp Creek Road intersects with US 521. These both likely have higher crash rates due to being high volume intersections.











#### **FSI** Crashes by Type

Over half (51%) of all fatal or serious injury crashes within Lancaster County are considered non-collision crashes. Non-collision crashes are classified as any event where the accident does not include the vehicle being struck by another vehicle, person, or object. Running-off-road, overturns, and jackknifes are examples of non-collision crashes.

The next most common crash type for fatal or serious injury crashes in Lancaster are angle crashes and head on crashes. These type of crashes often result in more severe injuries.

Many rural roads lack guardrails or shoulders, making run-off-the-road crashes more common in these areas.

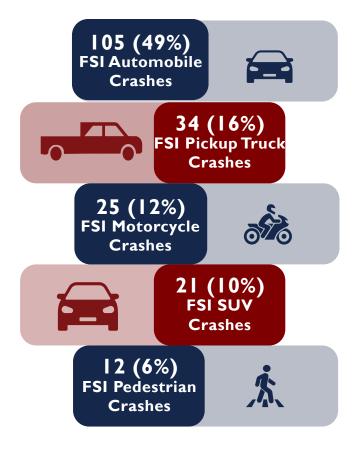


#### **FSI Crashes by Mode**

Almost half (49%) of all fatal or serious injury crashes within Lancaster County involved automobiles. Trucks were involved in 16% of all fatal or serious injury crashes, motorcycles were involved in 12%, and SUVs were involved in 10%.

Crashes involving pedestrians accounted for the fifth highest percentage of fatal or serious injury crashes for the county at 6% of all crashes.

Of the 12 fatal or serious injury pedestrian crashes, 6 resulted in a fatality.



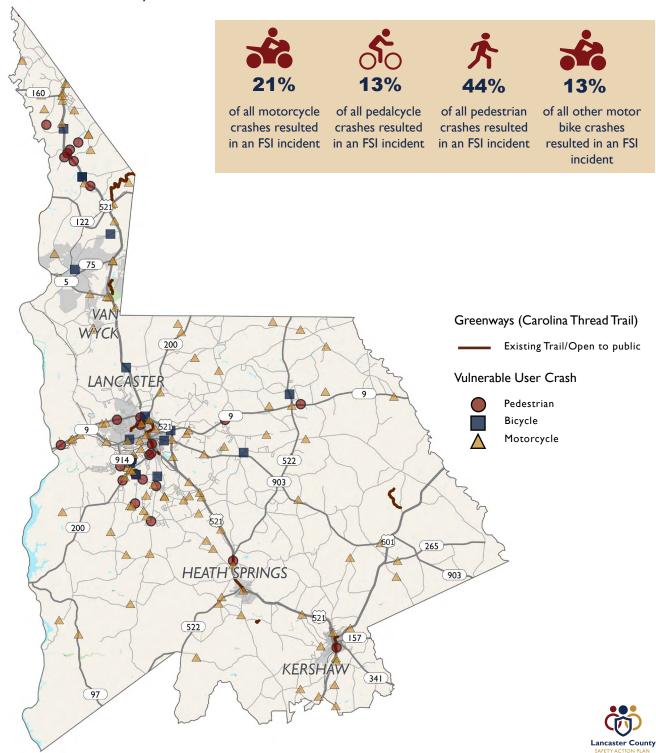




#### **Vulnerable Roadway User Crashes**

Vulnerable roadway users are classified as anyone on the roadway who is more at risk of serious injury or death in a crash such as motorcyles, bicyclists, and pedestrians.

44% of all crashes involving pedestrians in Lancaster County resulted in an FSI incident. This could be due to a lack of pedestrian facilities within the county. Currently, there is no policy requiring sidewalks on both sides of arterial streets within the county.

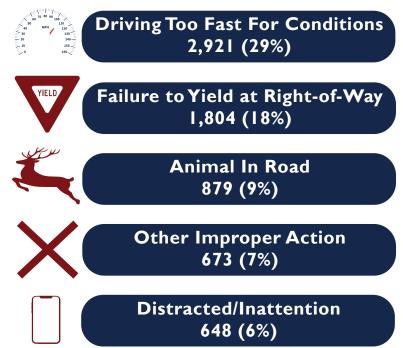




#### **Contributing Factors to All Crashes**

The graphic to the right outlines the contributing factors to all crashes within Lancaster County between 2020 - 2024. The highest contributing factor to crashes during this period, was driving too fast for conditions at 29% of all crashes. The second and third highest contributing factors to crashes in the county were failure to yield at right-of-way at 18% and an animal in the road at 9%.

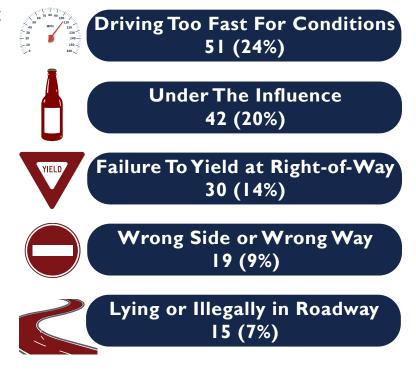
Crashes involving speed and animals in the road are more common in rural areas. Rural roadways often have less congestion than urban or suburban roads which can lead to higher travel speeds.



#### **Contributing Factors to FSI Crashes**

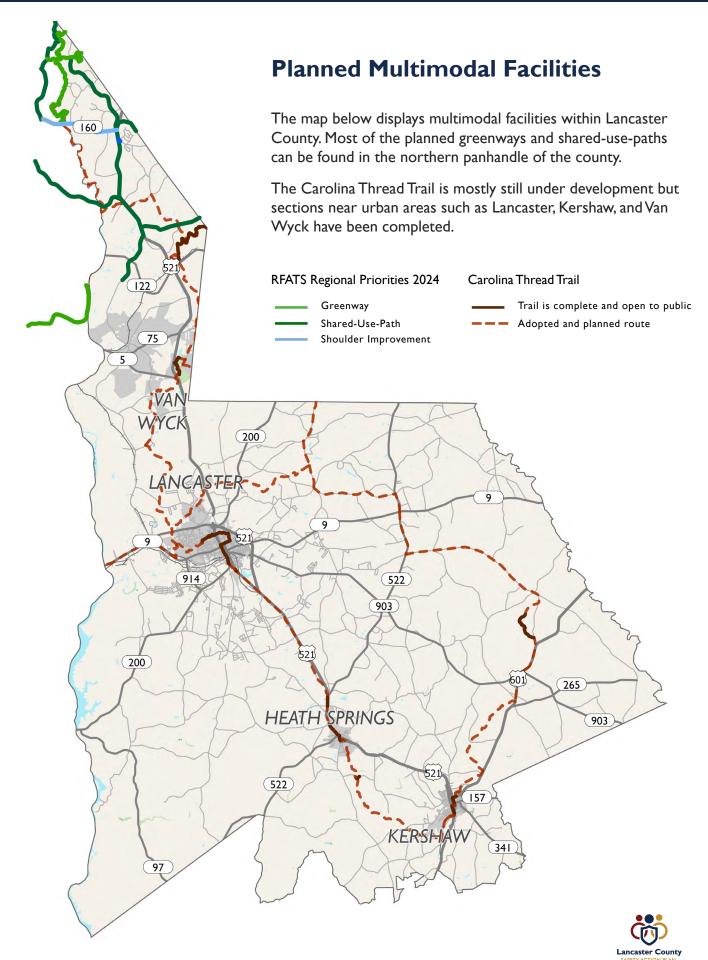
The graphic to the right outlines the contributing factors for all fatal or serious injury crashes within Lancaster County between 2020 - 2024. The highest contributing factor was driving too fast for conditions at 24% of all crashes. The second and third highest contributing factors to crashes in the county were driving under the influence at 20% and failure to yield at right-of-way at 14%.

Three of the five most common contributing factors for fatal or serious injury crashes do not appear on the list for contributing factors to all crashes. Driving under the influence, wrong side or wrong way driving, and lying in or being illegally in the roadway appear to often lead to a higher severity crash in Lancaster County.

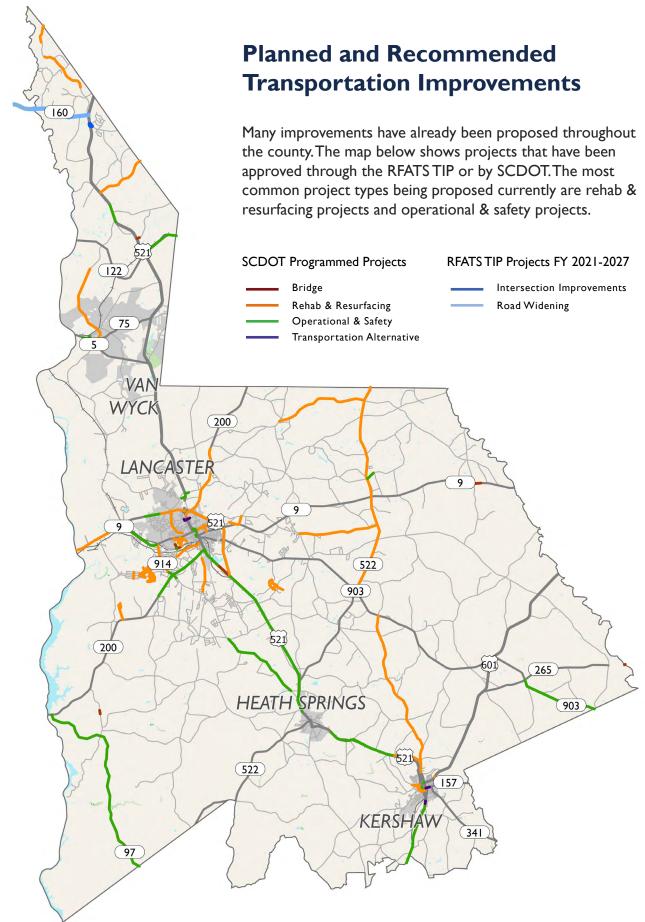












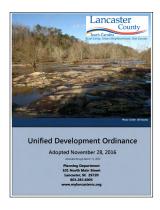


## PLANAND POLICY REVIEW





#### **PLAN AND POLICY REVIEW**

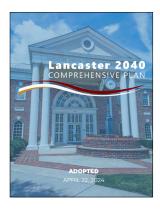


#### UNIFIED DEVELOPMENT ORDINANCE

The Unified Development Ordinance for Lancaster County, SC was adopted November 28, 2016 and was last amended in March of 2022. This document contains policies meant to guide the county's growth and development in a cohesive manner. It includes a zoning map for the county, infrastructure standards, and policies guiding natural resource protection.

#### **Key Takeaways**

- Promotes a strong, diverse economy that supports a variety of businesses
- Supports increased collaboration on transportation among jurisdictions
- Strengthens and directs development towards existing communities



#### LANCASTER 2040 COMPREHENSIVE PLAN

The Lancaster 2040 Comprehensive Plan was adopted April 22, 2024, and aims to promote mobility, growth, and balance within Lancaster County. The comprehensive plan serves as a guide to long-range growth and development within the county.

#### **Key Takeaways**

- Promotes healthy lifestyles for residents
- Splits county into regions: Panhandle Planning Area, Greater Planning Area, and Southern Lancaster Planning Area
- Identifies the City of Lancaster as the heart of Lancaster County
- Outlines the expectation of continued growth in the region



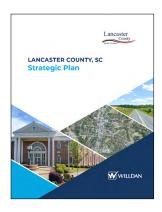
#### LANCASTER COUNTY SOUTHERN PANHANDLE SMALL AREA PLAN

This plan completed in 2021 addresses the expansion of development into this area after seeing growth in surrounding areas. By creating a consistent vision for land use and transportation as the area grows, leaders hope to guide the development of the area past it's current designation of Rural Residential, Rural Neighborhood, and Open Space Preservation.

- The southern panhandle contains
  ~8,500 acres of rural living
- 88% of the land is either undeveloped or underdeveloped
- Identifies US 521 as the main transportation orridor in the Southern Panhandle Area







#### LANCASTER COUNTY, SC STRATEGIC PLAN

Lancaster County's Strategic Plan was completed in 2023 and serves as an actionoriented road map to align the county's resources towards progressing the overall vision for the area. By strategically implementing the county's limited resources government services can be delivered efficiently and effectively.

#### **Key Takeaways**

- The plan's vision aims to create a network of thriving communities
- Identifies north-south mobility as an objective within the plan
- This plan uses a quality-of-life index to give an estimate of quality of life in different areas of Lancaster County



#### LANCASTER COUNTY PILOT TRAFFIC CALMING GUIDEBOOK

The county's traffic calming guidebook was published in December of 2020 to identify ways to reduce the negative impacts of vehicular traffic on residential streets. It gives residents living on county owned and maintained streets the ability to participate in adding potential traffic calming measures to the roads near their homes.

#### **Key Takeaways**

- To qualify, a road must be a two-lane residential, county owned road
- 75% or more of residents must approve mitigation measures
- Traffic calming devices in this plan include speed cushions, speed humps, speed tables, raised crosswalks, and raised intersections



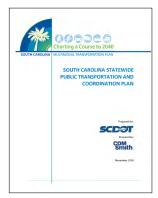
#### SCDOT OFFICE OF PUBLIC TRANSIT STATE MANAGEMENT PLAN

This plan was created to encourage the efficient development and implementation of transportation systems within the State of South Carolina. it also provides guidance to ensure that grant funds are used for their intended purpose.

- Provides guidance for urban and rural areas
- Emphasizes providing access and mobility to the transit dependent
- Aims to create a statewide transportation network





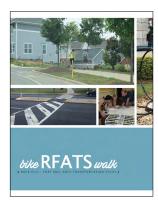


#### STATEWIDE PUBLIC TRANSPORTATION & COORDINATION PLAN

South Carolina's Statewide Public Transportation and Coordination Plan was completed in 2014 and is intended to identify public transportation services, needs, and strategies.

#### **Key Takeaways**

- A key strategy is to develop multimodal options for residents and visitors in all areas of the state
- Aims to create a coordinated public transportation system throughout all regions of South Carolina

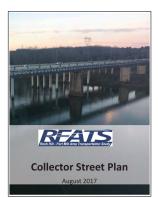


#### RFATS BICYCLE & PEDESTRIAN CONNECTIVITY PLAN

In 2016, RFATS published this document as a guide to short and long-term transportation and land use planning decisions for a safer and more accessible bicycling and walking environment for the region. It includes action-oriented guidance for local communities within the RFATS boundary.

#### **Key Takeaways**

- Envisions a healthy and vibrant region of South Carolina
- Addresses the needs of all ages and abilities
- Identifies an active transportation system within the RFATS boundary
- Only 55% of Lancaster County residents have adequate access to locations for physical activity



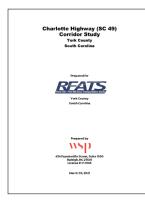
#### RFATS COLLECTOR STREET PLAN

This plan was completed in 2017 to reduce long-term traffic congestion within the Rock Hill-Fort Mill Area Transportation Study (RFATS) region as additional development occurs. It outlines a network of supporting streets to expand routing options for drivers.

- Dave Lyle Boulevard (SC 122) which extends into Lancaster County is identified in the Major Roadway Improvement Plans section
- Outlines typical design improvements for collectors within the region







#### CHARLOTTE HIGHWAY SC 49 CORRIDOR STUDY REPORT

RFATS conducted a study on the SC 49 corridor in 2021 to identify feasible and cost-effective solutions to improve safety, mobility, and operations within the corridor constraints. As the region grows, it is expected that traffic along the corridor will also increase.

#### **Key Takeaways**

- SC 49 is an east-west five-lane minor arterial roadway
- This study evaluates 15 intersections for safety and efficiency
- SC 49 serves as a major carrier of commuter traffic between Lake Wylie and the Greater Charlotte Region



#### **US 521 CORRIDOR STUDY**

In November of 2023, RFATS collaborated with Lancaster County to complete a corridor study for US 521 between the NC state line to the intersection of SC-75 (Waxhaw Highway). The study aims to identify alternatives for US 521 to improve safety, mobility, and operations.

#### **Key Takeaways**

- Between 2019-2021 965 crashes occured in the study area
- 51% of the crashes occured at signalized intersections
- Rear end and angle crashes include
   57% and 24% respectively
- Estimated 2045 traffic volume for the corridor is 54,000 vpd



#### CAROLINA THREAD TRAIL MASTER PLAN

This plan was completed in 2011 and aims to support the creation of a network of trails within Lancaster County to connect residents to sites and destinations that make Lancaster County unique, and will connect to trails across the region.

- Emphasizes providing access to historic sites
- Includes plans for 110 miles of trails within Lancaster County
- Surrounding counties completed similar plans with the purpose of connecting the trail system



## KEY CORRIDORS





#### **KEY CORRIDORS**

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#### Charlotte Hwy (US-521 North of Lancaster)

From SC-9 to Lancaster County Boundary



US 521 is the main corridor used to travel north and south within Lancaster County. This portion of the roadway links the City of Lancaster to the City of Charlotte by connecting drivers to I-485 and the Ballantyne area south of Charlotte, NC. The corridor primarily consists of a 4-lane road with a two-way-left-turn lane or a grass median dividing travel lanes.

Key Intersections	Waxhaw Hwy     Fort Mill Hwy
Traffic Volumes	8,100 - 19,100 VPD
Crash History	19 Fatal or Serious Injury Crashes
Roadway Characteristics	Typical Section: 4-lane Partially Controlled Length: 23 Miles Multimodal Facilities: Partial/Incomplete Sidewalks
Major Destinations	City of Lancaster     Indian Land
Constraints, Barriers, and Issues	<ul><li>Congestion</li><li>High traffic volumes</li></ul>
Typical Land Uses	<ul><li>Residential Neighborhood</li><li>Industrial Mixed-Use</li></ul>





## 2

#### Kershaw Camden Hwy (US-521 South of Lancaster)

From SC-200 to US-601



US 521 is the main corridor used to travel north and south within Lancaster County. This section of US 521 connects the City of Lancaster to cities in the southern portion of the county such as Elgin, Heath Springs, and Kershaw. The road leads to US-601 which also leads to the city of Camden. The roadway is mainly a 2-lanes with no median or curb.

Key Intersections	• US 601 • SC 9
Traffic Volumes	8,100 - 19,100 VPD
Crash History	15 Fatal or Serious Injury Crashes
Roadway Characteristics	Typical Section:Two-Lane Undivided Length: 19 Miles Multimodal Facilities: Partial/Incomplete Sidewalks
Major Destinations	City of Lancaster     City of Kershaw
Constraints, Barriers, and Issues	<ul> <li>High traffic volumes</li> <li>Sidewalk gaps and poor/limited pedestrian crossings</li> </ul>
Typical Land Uses	Low Density Residential     Agricultural Residential





### 3

#### Pageland Hwy/Chester Hwy (SC-9)

From Catawba River to Lynches River



SC-9 is split into two different sections within Lancasater County. To the west of the City of Lancaster, Chester Highway connects Lancaster to the City of Chester. To the east of the City of Lancaster, Pageland Highway connects Lancaster to the City of Pageland. The road consists of mainly a two-lane undivided roadway.

Key Intersections	• US 601 • US 521
Traffic Volumes	8,100 - 19,100 VPD
Crash History	20 Fatal or Serious Injury Crashes
Roadway Characteristics	Typical Section: Two-Lane Undivided Length: 22 Miles Multimodal Facilities: Partial/Incomplete Sidewalks
Major Destinations	<ul><li>City of Pageland</li><li>City of Lancaster</li></ul>
Constraints, Barriers, and Issues	<ul> <li>High traffic volumes</li> <li>Sidewalk gaps and poor/limited pedestrian crossings</li> </ul>
Typical Land Uses	Low Density Residential     Light Industrial





## Gold Mine Hwy (US-601) From N. Matson St. to Lynches River



US-601 runs north to south through Lancaster County and connects to the southern end of US 521. It also connects the City of Kershaw to cities outside of the county such as Pageland, Westville, and Dekalb. The road is mainly a two-lane undivided roadway with certain sections expanding to incorporate a two-way-left-turn lane.

Key Intersections	• US 521 • SC 9
Traffic Volumes	3,400 - 8,100 VPD
Crash History	5 Fatal or Serious Injury Crashes
Roadway Characteristics	Typical Section:Two-Way with TWLTL Speed Limit: 13 Miles Multimodal Facilities: Partial/Incomplete Sidewalks
Major Destinations	City of Kershaw
Constraints, Barriers, and Issues	<ul> <li>Congestion</li> <li>Sidewalk gaps and poor/limited pedestrian crossings</li> </ul>
Typical Land Uses	Agricultural Residential     Industrial





## 5

#### Flat Creek Rd (SC-903)

From South Main St. to Lancaster County Boundary



SC-903 runs to the southeast of the City of Lancaster and connects the city to some of the more rural areas in the county. SC-903 also intersects with US-601 and SC-151. The roadway is primarily two-lane undivided with certain sections expanding up to 4 lanes with a two-way-left-turn lane.

Key Intersections	• US 601 • US 521
Traffic Volumes	8,100 - 19,100 VPD
Crash History	13 Fatal or Serious Injury Crashes
Roadway Characteristics	Typical Section:Two-Lane Undivided; Four-Lane with TWLTL Speed Limit: 22 Miles Multimodal Facilities: Partial/Incomplete Sidewalks
Major Destinations	City of Lancaster
Constraints, Barriers, and Issues	<ul> <li>High traffic volumes</li> <li>Sidewalk gaps and poor/limited pedestrian crossings</li> </ul>
Typical Land Uses	Agricultural Residential





## 6

#### Monroe Hwy (SC-200)

From US 521 to Lancaster County Boundary



SC-200 runs to the northeast of the City of Lancaster and connects the city to the City of Monroe in North Carolina. It also passes through the towns of Jackson and Roughedge. The road is primarily a two-lane undivided roadway.

Key Intersections	US 521 Shiloh Unity Road
Traffic Volumes	3,400 - 8,100 VPD
Crash History	3 Fatal or Serious Injury Crashes
Roadway Characteristics	Typical Section: Two-lane undivided Length: 8 Miles Multimodal Facilities: Partial/Incomplete Sidewalks
Major Destinations	City of Lancaster
Constraints, Barriers, and Issues	<ul> <li>Congestion</li> <li>Sidewalk gaps and poor/limited pedestrian crossings</li> </ul>
Typical Land Uses	Low Density Residential     Industrial Mixed-Use



## **KEYTAKEAWAYS**





#### **KEY TAKEAWAYS**



## The most dangerous corridors are more typically along rural roads.

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While crashes are concentrated around the City of Lancaster, the roadway segments with the highest rate of fatal and serious injury (FSI) crashes are mostly in rural areas. Data also shows that FSI crashes in the area are most frequently caused by speeding, and over 50% of the time, these are non-collision crashes. These data points indicate that rural roads in the County are likely more dangerous for travelers.



## Our most vulnerable transportation users are typically not in vehicles.

Data shows that 44% of all crashes involving pedestrians result in a fatality or serious injury. This is the highest rate for any mode type found within the county. Other vulnerable users also experienced higher rates of FSI crashes, with 21% of motorcycle crashes and 13% of bicycle crashes resulting in a fatality or serious injury.



## Managing and reducing speeds on our roads is critical to improving safety.

The most common contributing factor for FSI crashes in the County is speeding. This is especially true on our rural roadways, and underscores a need to better manage and reduce speeds on dangerous corridors.

