County of Orange

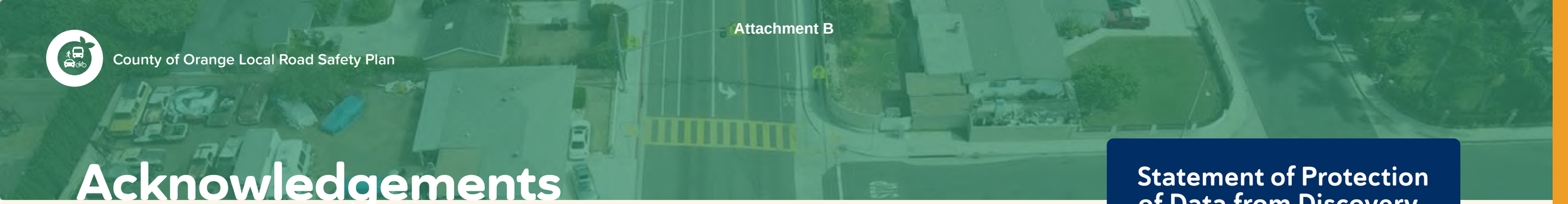
Local Road Safety Plan

Prepared for:

OC Public Works

Fehr & Peers

2026



Acknowledgements

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- California Highway Patrol
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- Orange County Fire Authority
- Orange County Health Care Agency
- Orange County Parks
- Orange County Sherriff's Department
- Orange County Transportation Authority

Consultant Team

- Fehr & Peers
- MBI Media

Statement of Protection of Data from Discovery and Admissions

Section 148 of Title 23, United States Code

REPORTS DISCOVERY AND ADMISSION INTO EVIDENCE OF CERTAIN REPORTS, SURVEYS, AND INFORMATION — Notwithstanding any other provisions of law, reports, surveys, schedules, lists, or data compiled or collected for any purpose relating to this section, shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at the location identified or addressed in the reports, surveys, schedules, lists, or other data.

This report is dedicated to those who lost their lives on roadways within Unincorporated Orange County.
Their loss reminds us that every life is precious and inspires us all to continue our efforts toward the collective vision of zero traffic deaths.

Table of Contents

This plan is organized into five chapters that move from understanding roadway safety conditions to identifying priorities, engaging the community, and implementing strategies to reduce serious injuries and fatalities.

Chapter 1:
Introduction

> *Far too many Americans die each year to traffic fatalities to take our eye off the ball."*
>
> **Sean P. Duffy**
> United States Secretary of Transportation

Every year, thousands of lives are cut short on America's roads, and behind each statistic is a family, a friend, a neighbor. The County of Orange refuses to accept roadway deaths and serious injuries as an unavoidable cost of travel. Whether someone is walking to school, biking to work, or driving home, they should arrive safely.

The County of Orange Local Road Safety Plan (LRSP) is a strategic framework for identifying, evaluating, and prioritizing roadway safety improvements within Unincorporated Orange County. Developed in alignment with the FHWA SS4A initiative and California Department of Transportation (Caltrans) Zero Traffic Fatalities Task Force goals, the LRSP reflects a shared commitment to building safer, more equitable, and more sustainable transportation systems.

This plan is more than a policy - it's a call to action. Over the next five years, the LRSP will guide the County's safety initiatives, inform funding applications, and support the implementation of life-saving infrastructure and programs. Achieving the goals of this LRSP demands a clear and unified vision of how the County approaches roadway safety.

Vision Statement

The County will work to significantly reduce fatalities and serious injuries on unincorporated County roadways and endeavor to eliminate these crashes by 2050.

Guiding Principles

The following guiding principles reflect the values, strategies, and long-term commitments that will shape the County's efforts over the life of the plan. Grounded in best practices and responsive to local needs, these principles provide the foundation for building a safer and more accessible transportation system for everyone in Unincorporated Orange County.

1. Adopt the principles of the Safe System Approach to build multiple layers of protection to prevent crashes and minimize harm when crashes do occur.
2. Foster a culture of shared roadway safety amongst transportation professionals and the public.
3. Proactively implement safety measures for people across all modes of travel.
4. Collaborate with emergency responders, traffic enforcement professionals and community partners to build a comprehensive safety program.
5. Take an equitable approach to roadway safety and reduce disparities in roadway safety outcomes.

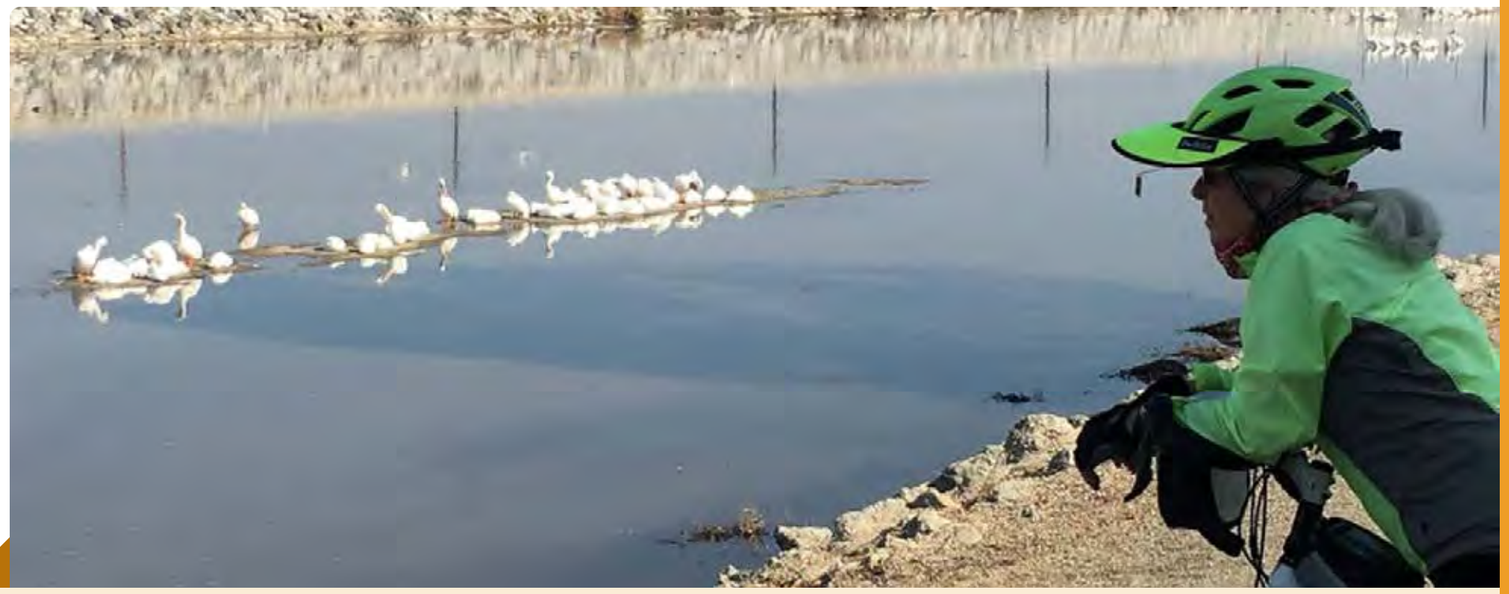
The study area encompasses County-maintained roadways within Unincorporated Orange County. Roadways owned and maintained by the State of California, such as interstate freeways and state routes, are not considered local roadways and are generally excluded from the analysis. However, State Route 74 (SR-74) is included in the study area, as it intersect with numerous local roadways within unincorporated areas.

This LRSP fulfills the requirements of a Comprehensive Safety Action Plan (CSAP), positioning the County of Orange to pursue additional federal funds to implement high-impact safety improvements in the communities that need them most.

What is a Local Road Safety Plan?

A Local Road Safety Plan (LRSP) provides a framework for identifying, evaluating, and prioritizing roadway safety improvements on local roads. Recognizing the diverse transportation needs and challenges across rural, suburban, and urban communities, the LRSP development process is tailored to local conditions and concerns. The process results in a prioritized list of safety issues, contributing risk factors, recommended countermeasures, and actionable strategies to reduce fatalities and serious injuries.

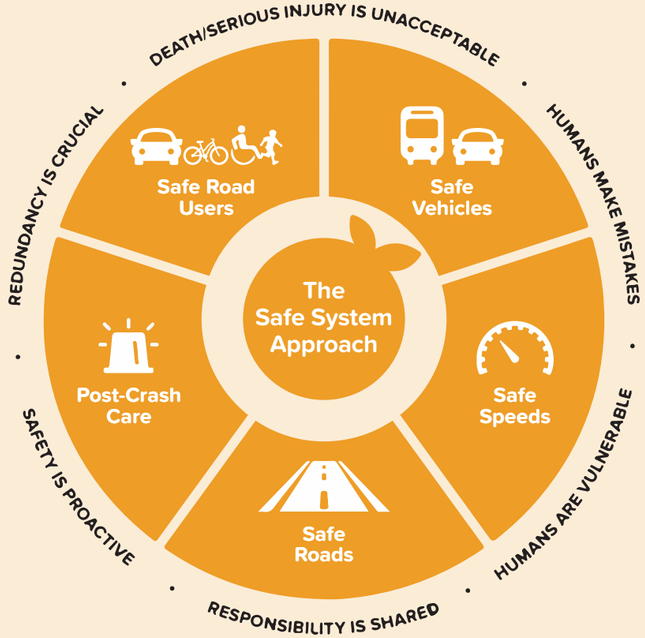
An LRSP also serves as a critical tool for securing state and federal safety funding, enabling jurisdictions to proactively invest in infrastructure, policies, and programs that support safe, equitable, and sustainable transportation systems. The development of an LRSP is a collaborative effort involving local agencies, stakeholders, and the community.



The Safe System Approach

The Safe System Approach aims to eliminate fatal and serious injuries by designing a transportation system that accounts for human mistakes and limits crash forces to survivable levels. It is built on the understanding that people will sometimes make errors, but those errors should not result in death or life-altering injury.

Rather than relying solely on individual behavior, the Safe System Approach emphasizes shared responsibility among transportation agencies, vehicle manufacturers, policymakers, and road users. It promotes safer road design, safer speeds, safer vehicles, and improved post-crash care, with overlapping layers of protection to reduce risk and improve outcomes. This approach is central to achieving Vision Zero (i.e., zero traffic deaths) and has been adopted by United States Department of Transportation (USDOT) as part of its National Roadway Safety Strategy.



Orange County Unincorporated Communites

Unincorporated Orange County includes areas in Orange County, California, that are not governed by a local municipality (a city or town) and are instead governed directly by the County. These areas include residential neighborhoods, commercial zones, and rural lands that rely on the County for municipal services such as law enforcement, public works, and land use planning.

- Anaheim Island
- Andora/Fairhope Island
- Beach/McFadden Island
- Bolsa/Pacific Island
- Costa Mesa Island
- Country Club Island
- Dale/Augusta Island
- Dana Point Harbor
- El Modena Islands
- Fairlynn Island
- Fountain Valley Island
- John Wayne Airport
- Katella/Rustic Island
- Ladera Ranch
- Las Flores
- Lincoln/Glassell Island
- Orange Park Acres
- Mac/Syracuse Island
- McFadden/Monroe
- Midway City
- Modjeska Canyon
- North Tustin
- Olive Heights
- Rancho Mission Viejo
- Rossmoor
- Santa Ana Country Club
- Santa Ana River Bridges
- Santiago Canyon Road
- Santiago Creek Island
- Silverado Canyon
- Trabuco Canyon
- Wagon Wheel

Chapter 2:
Crash Analysis

> *We can no longer accept death and serious injuries as just a consequence of using our roads. As users of the road, we share in the responsibility of keeping ourselves and other safe. Together we can drive culture change and prioritize roadway safety for all."*

Barbara Rooney
Director of the California Office of Traffic Safety

Improving roadway safety begins with a clear understanding of the factors contributing to crashes, injuries, and fatalities within a community. This chapter examines the unique safety challenges facing the local road network, including crash patterns, high-risk locations, and contributing behaviors. This foundational understanding enables the development of targeted strategies that address root causes and reflect the community's values, ultimately guiding the implementation of effective, data-driven solutions.

Collision Data Overview

The safety analysis focuses on fatal and injury crashes that occurred during the five-year period from 2019 to 2023 using data from UC Berkeley's Transportation Injury Mapping System (TIMS). Crashes that resulted in property damage only (PDO) were excluded from the analysis. The dataset includes crashes reported to law enforcement and geocoded by TIMS, allowing for location-based analysis.

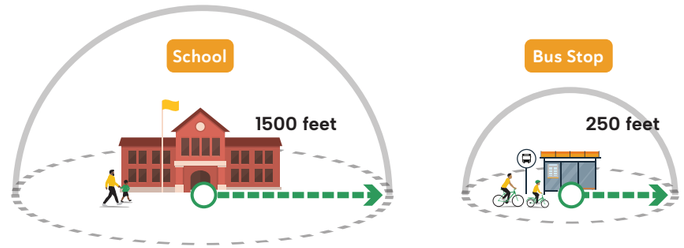
The study area encompasses County maintained roadways within Unincorporated Orange County. Unincorporated Orange County includes areas that are not governed by a local municipality (a city or town). Roadways owned and maintained by the State of California such as interstate freeways and state routes are not considered local roadways. However, State Route 74 (SR-74) was included as part of the study area, since many local roadways intersect SR-74 in unincorporated areas.

Contextual Data Overview

In safety analysis, a **contextual factor** refers to an environmental or situational element that may influence the likelihood, frequency, or severity of traffic crashes. These factors go beyond the immediate details of the crash itself and instead focus on the broader setting in which the crash occurred.

Examples include intersection characteristics (e.g., stop signs or signals), roadway characteristics (e.g., number of lanes, posted speed limit), proximity to transportation infrastructure (e.g., bike lanes or bus stops), geography, and land use (e.g., proximity to schools or parks). By analyzing these contextual factors, the safety analysis is able identify systemic risks and prioritize improvements that address the root causes of crashes rather than treating each crash as an isolated event.

The distance considered around each contextual factor depends on its area of influence. Contextual factors with localized influence on crash conditions, such as roadway characteristics, intersection characteristics, and presence of transportation infrastructure, were evaluated using smaller buffer distances. Intersection characteristics and the presence of transportation infrastructure at intersections (such as bus stops) use a value of 250 feet, consistent with Caltrans guidance, larger than the 100-foot buffer applied to roadway characteristics.



Land use and geographic contextual factors use defined catchment areas for schools parks, and other land-use categories, whereas specific geographic boundaries were applied as binary classifications based on whether a collision occurred within the designated boundary, without applying a buffer distance.

Contextual Factors

Intersection Characteristics

Traffic Signals	250ft
Stop Signs	250ft
Roundabouts	250ft

Roadway Characteristics

Number of Lanes	100ft
Posted Speed	100ft
Observed Speed	100ft
Divided/Undivided Median	100ft

Transportation Infrastructure

Bus Stops	250ft
Bicycle Facilities	100ft

Geography

Disadvantaged Communities	250ft
Community Groups	Within
Supervisorial District	Within

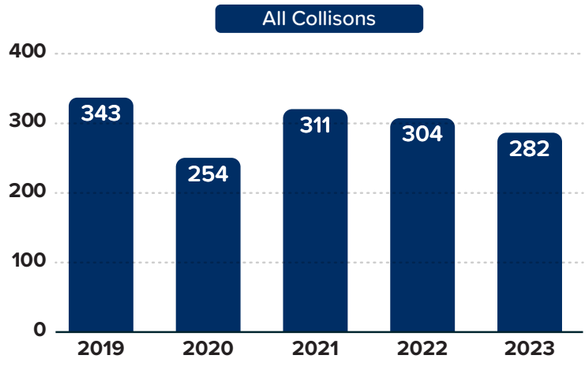
Land Use

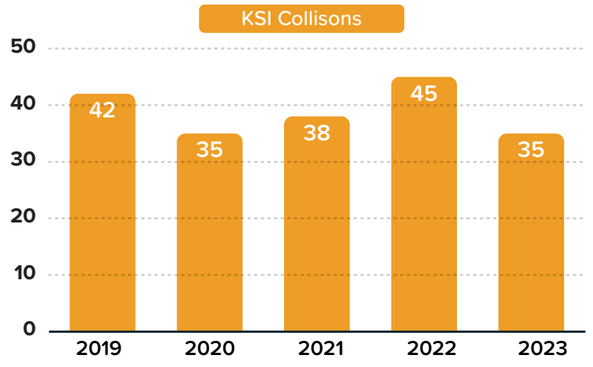
Schools	1,500ft
Parks	1,000ft
Other Land Uses	250ft

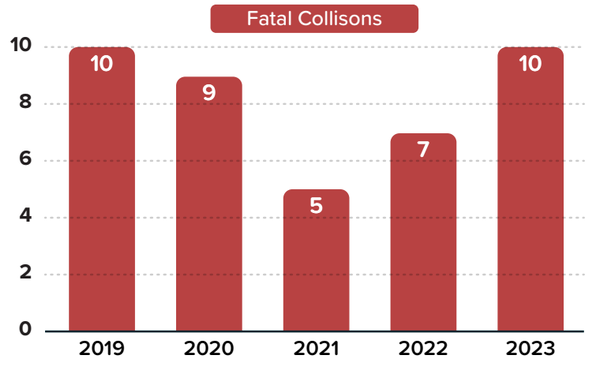
Collisions by Year, Month, and Day of Week

Crashes by Year

Between 2019 and 2023, the number of crashes decreased by 18%, but the number of fatal crashes in 2023 remained the same as in 2019.

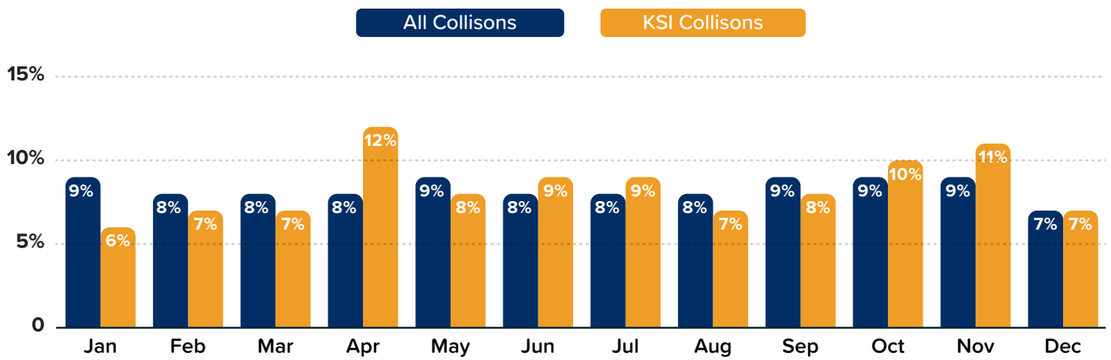






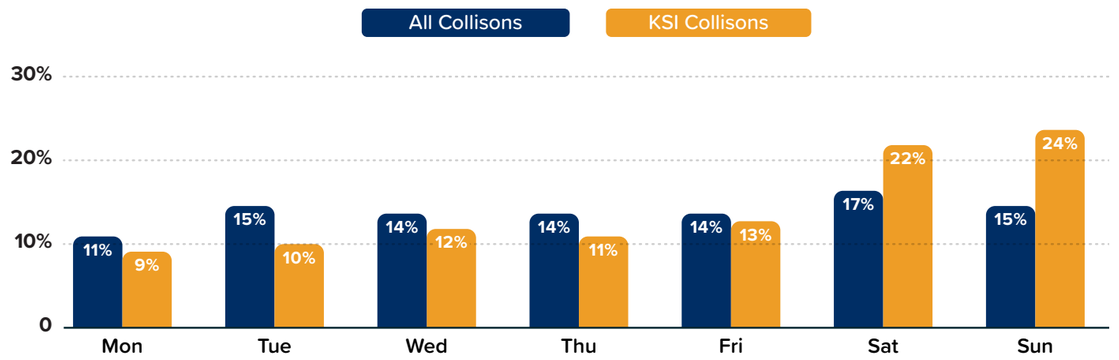
Crashes by Month

Crashes are relatively evenly distributed throughout the year. KSI Crashes show more variation, with notable peaks in April with 12%, October with 10%, and November with 11% of KSI crashes occurring within each month.



Crashes by Day of Week

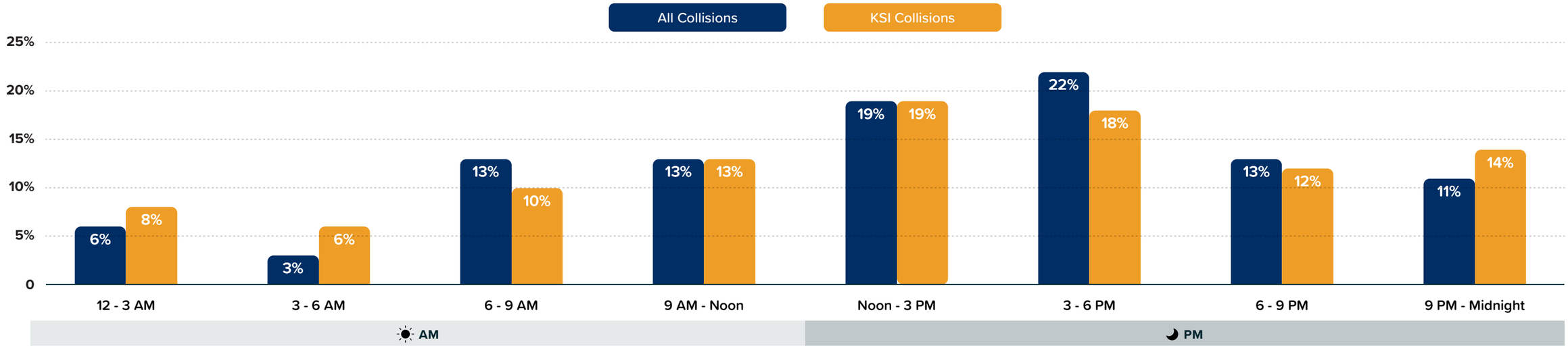
Generally, crashes are relatively evenly distributed throughout the week. KSI crashes occur more frequently on weekends, with Saturday and Sunday collectively accounting for 46% of KSI crashes.



Time of Day and Lighting Condition

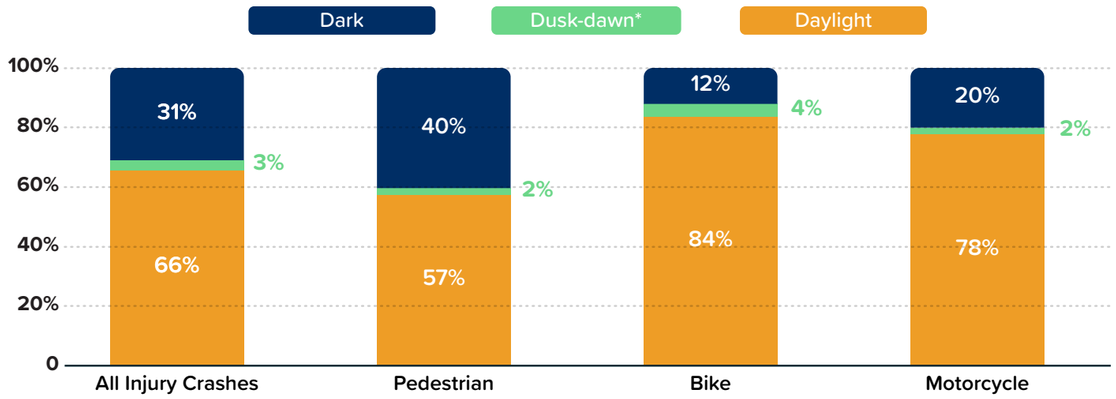
Crashes by Time of Day

The largest share of injury and KSI crashes occurred in the afternoon/evening between 12 - 6 PM, making up 41% of all crashes and 37% of KSI crashes.



Time of Day and Mode

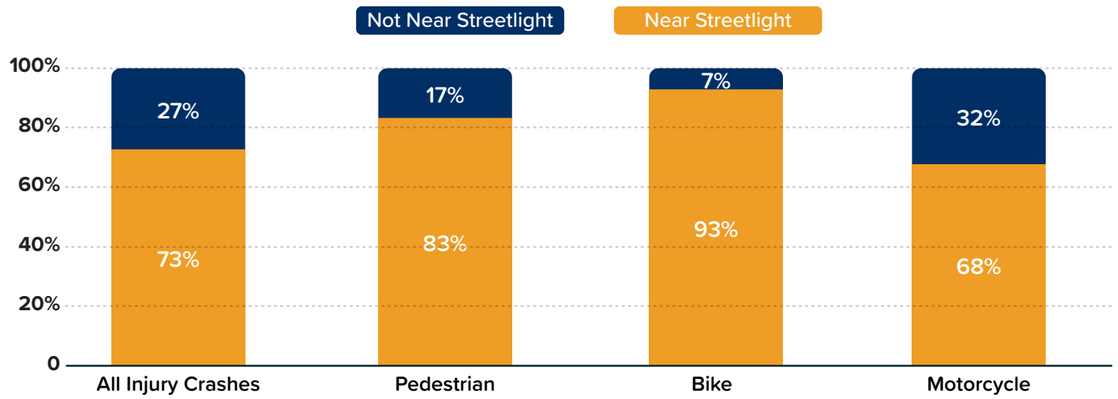
Roadway lighting conditions can influence the visibility of vulnerable roadway users. Crashes involving pedestrians occur more frequently at night (40%) when compared to other modes (31%).



*Dusk–dawn refers to low-light conditions occurring around sunrise and sunset. Although these periods generally fall within roughly 30 minutes of sunrise/sunset, crash records classify dusk–dawn based on the responding officer's judgment at the scene.

Lighting Condition

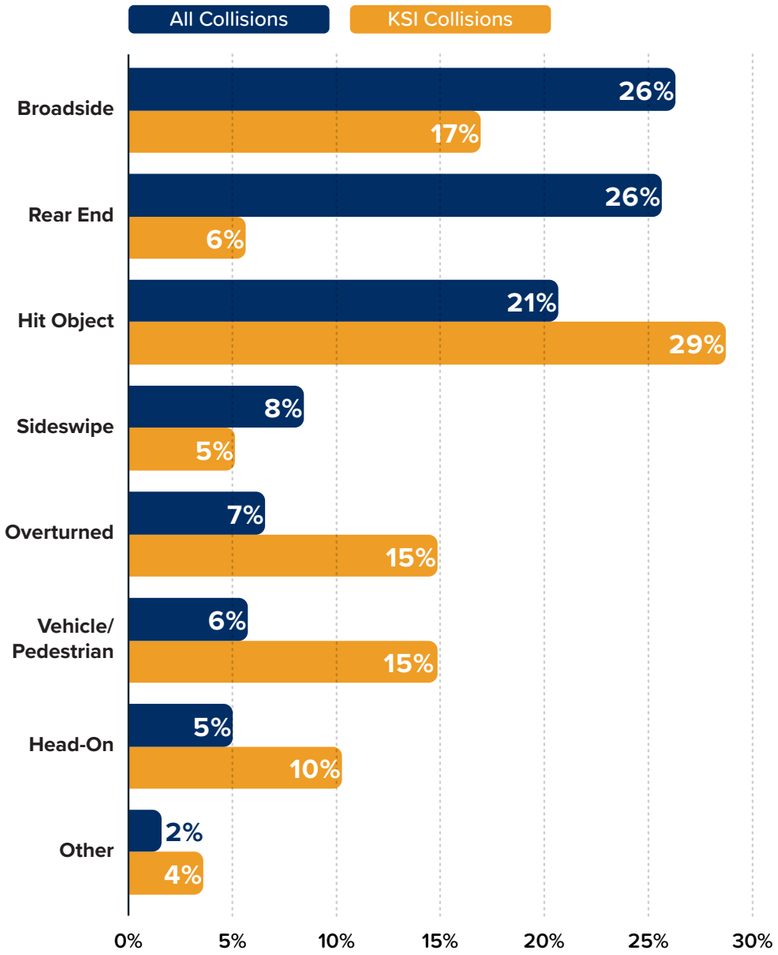
Of the crashes that occurred at night, no street lighting is a higher factor in motorcycle-involved crashes (32%) when compared to all crashes (27%).



Crash Type

The three most common crash types on Unincorporated Orange County roadways are Broadside (26%), Rear End (26%), and Hit Object (21%) crashes.

For KSI crashes, Hit Object crashes account for the largest share of crash types (29%), followed by Broadside (17%), then Overturned and Vehicle/ Pedestrian (15%).

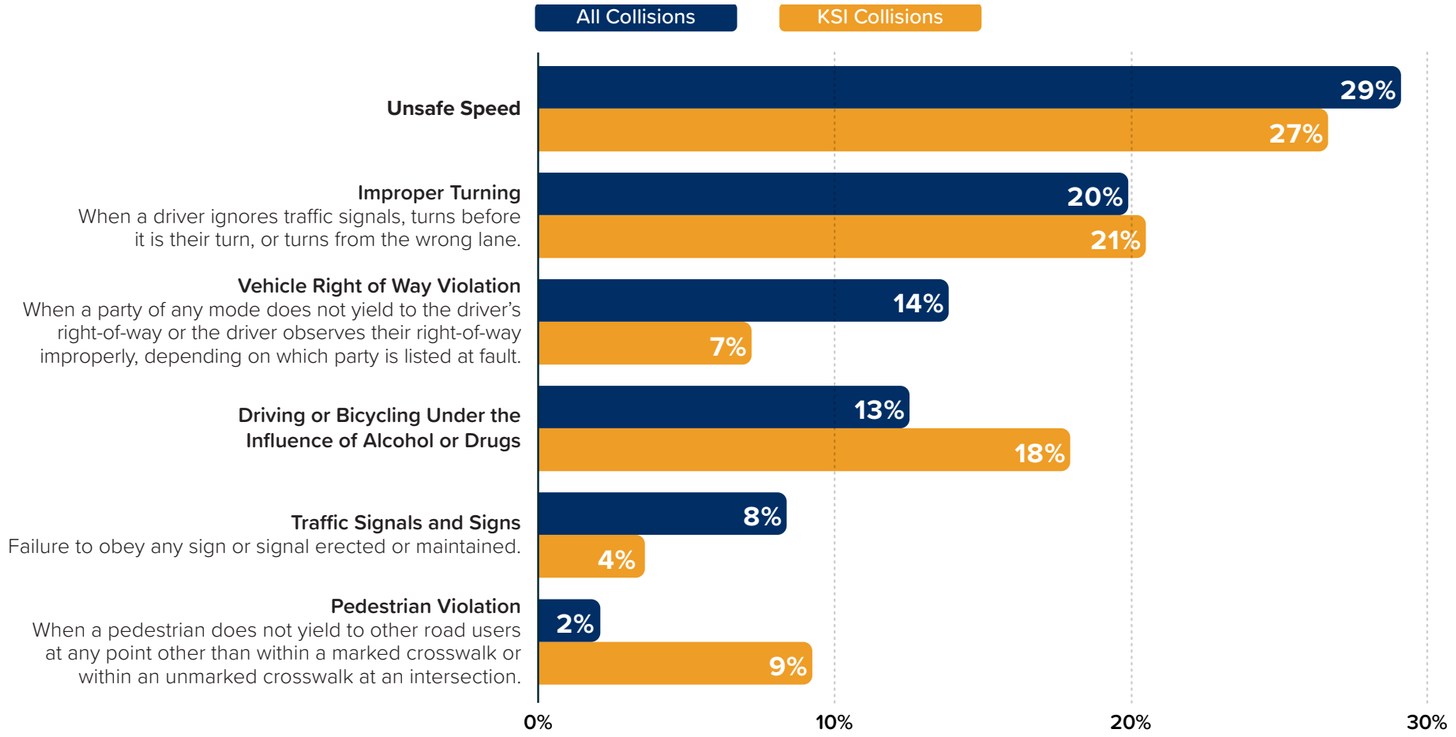


Primary Crash Factor

There may be multiple factors at play in any given crash. The primary crash factor is the one element or driving action which in an officer's opinion best describes the main cause of the crash.

On Unincorporated Orange County roadways, the most common primary crash factors are Unsafe Speed (29%), Improper Turning, commonly referred to as Unsafe Lane Change (20%), Vehicle Right-of-Way (14%), and Driving or Bicycling Under the Influence of Alcohol or Drugs (13%).

For KSI crashes, the most common primary crash factors are Unsafe Speed (27%), Improper Turning (21%), and Driving or Bicycling Under the Influence of Alcohol or Drugs (18%).



Note: Chart shows only the most common Primary Crash Factors and does not sum to 100%.

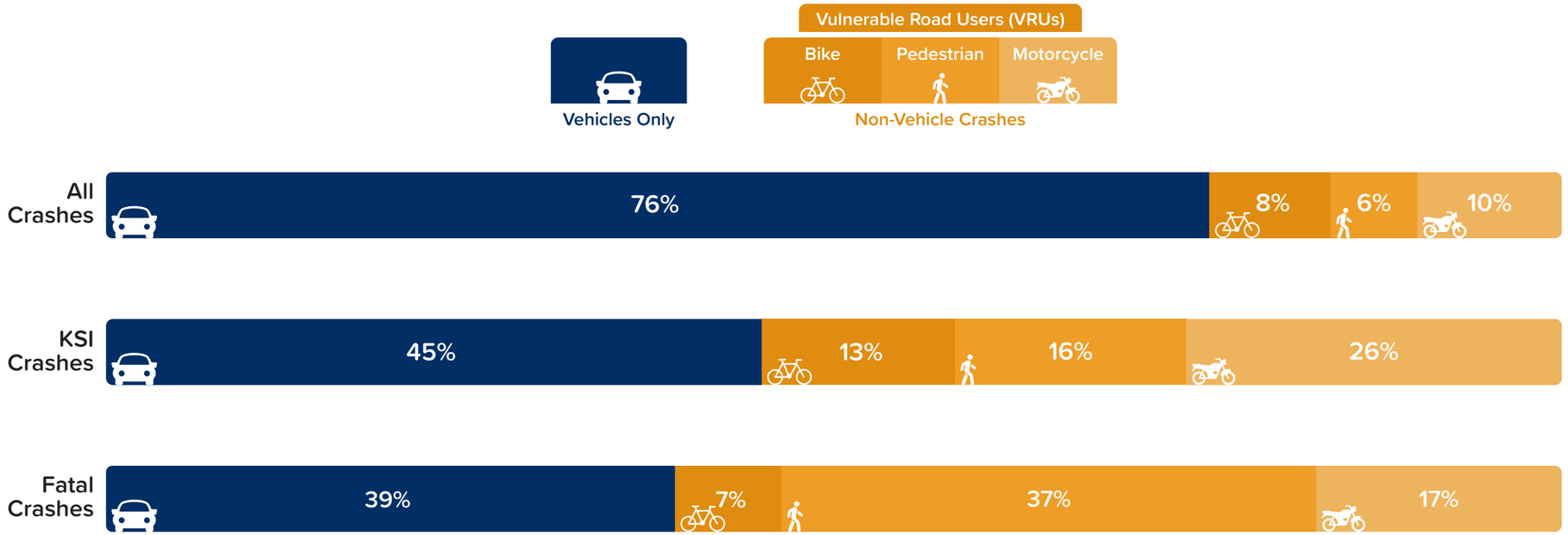
Driving or Bicycling Under the Influence of Alcohol or Drugs

Alcohol and/or drug impairment among drivers or bicyclists increases the risk of crashes resulting in severe injury or fatality. Between 2019 and 2023, 13% of crashes involved a driver under the influence, increasing to 18% among KSI crashes.

Mode of Transportation

Although people walking, biking, or riding motorcycles were involved in 24% of all crashes, they accounted for approximately 55% of KSI crashes and 61% of fatal crashes.

This disparity highlights the heightened risks faced by individuals who are not protected by the frame of a vehicle. It underscores the need for targeted safety improvements, such as enhanced pedestrian crossings, protected bike infrastructure, reduced vehicle speeds, and improved visibility. Addressing these risks is critical not only for reducing severe injuries and fatalities, but also for supporting a more equitable and multimodal transportation system that allows all users to travel safely, regardless of how they choose to get around.



Vulnerable Road Users (VRUs) are people who travel without the protection of an enclosed motor vehicle and are therefore at greater risk of serious injury or fatality in a traffic collision. This group includes pedestrians, bicyclists (including electric bicycles), users of micromobility devices (such as scooters), and motorcyclists. **Vulnerable road users face a disproportionate share of severe crashes, highlighting why safer, more equitable street design is essential.**

Note: Collision data does not distinguish e-bikes from conventional bicycles, and other micromobility devices are not separately reported or reliably captured.

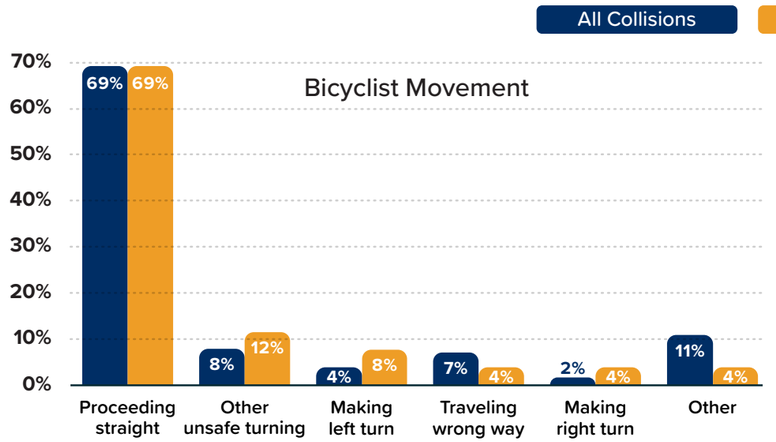
Vulnerable Users

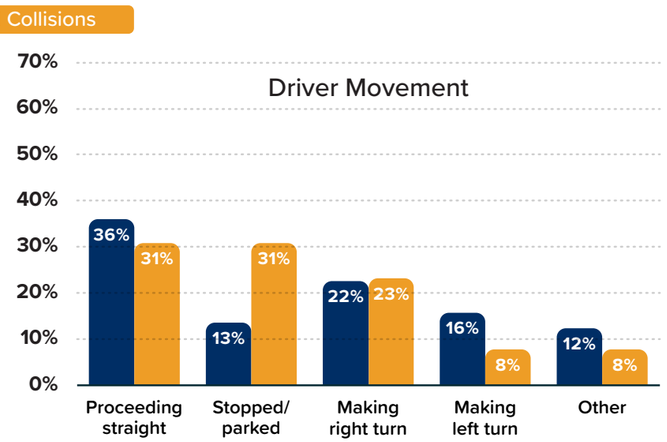
Bicyclists

Most bicycle crashes occurred when bicyclists were proceeding straight. While proceeding straight, bicyclists are able to travel at higher speeds, resulting in more severe crash outcomes.

Drivers involved in bicyclist collisions were often engaged in turning movements prior to the crash. These turning maneuvers often introduce conflict points with through-traveling bicyclists, particularly at intersections and driveways.

Note: Collision data does not distinguish e-bikes from conventional bicycles, and other micromobility devices are not separately reported or reliably captured.

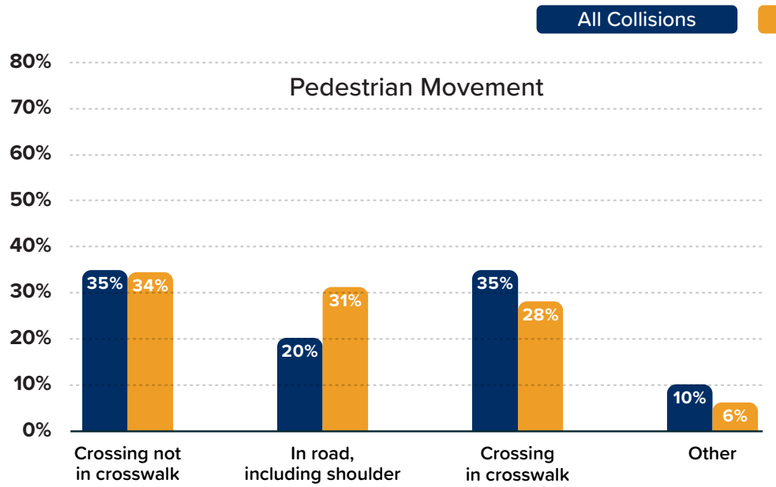


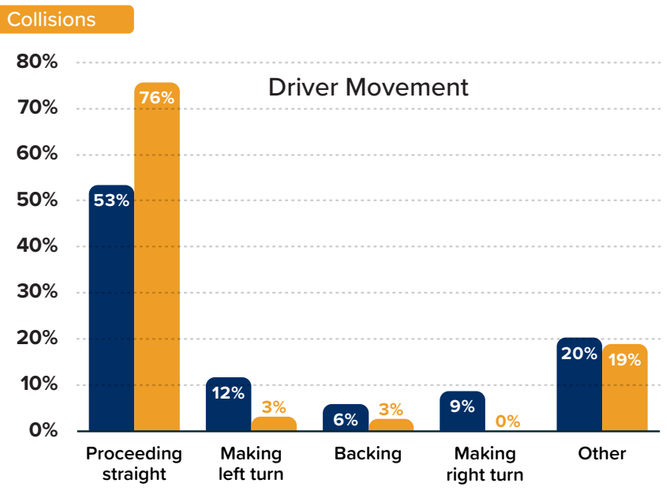


Pedestrians

Most pedestrian crashes occurred when pedestrians were in the roadway, either not at a marked crosswalk or along the shoulder. The high proportion of pedestrians crossing outside of crosswalks or walking within the roadway highlights the importance of identifying opportunities to improve pedestrian infrastructure, such as adding crosswalks or sidewalks.

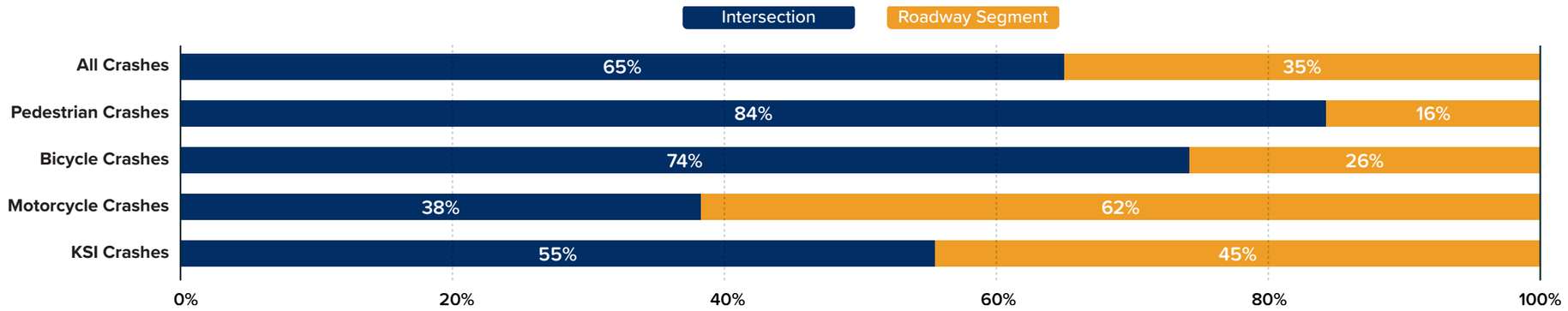
Most drivers involved in pedestrian collisions were proceeding straight prior to the crash. While proceeding straight, drivers are able to travel at higher speeds, resulting in more severe crash outcomes.





Where are Crashes Occurring?

Crashes are more likely to occur at intersections than midblock along a roadway segment because people walking, biking, and driving are interacting with others, changing directions, and making decisions. 65% of crashes and 55% of KSI crashes on Unincorporated Orange County roadways occur within 250 feet of an intersection. The percentage of crashes increases to 74% for bicycle crashes and 84% for pedestrian crashes. However, in contrast, most motorcycle crashes occur along roadway segments. The distance considered around each contextual factor depends on its area of influence. For example, a school affects a much larger surrounding area compared to a bus stop.

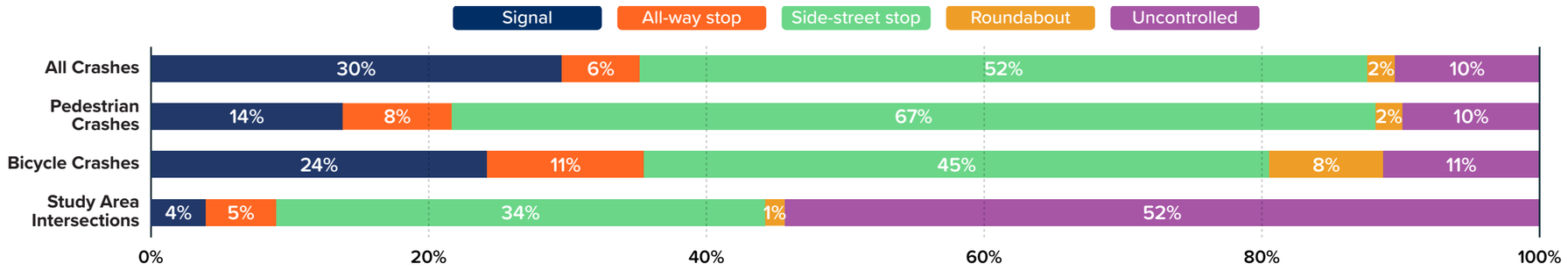


Most crashes occur at intersections, especially pedestrian and bicycle crashes, while motorcycle crashes are more likely to occur along roadway segments.

Intersection Characteristics

Intersection Control

Taking a closer look at crashes that occurred at intersections - most of the intersection crashes occurred at Side-Street Stop-Controlled intersections (52%), despite representing only 34% of intersections within Unincorporated Orange County. The percentage of pedestrian crashes at Side-Street Stop-Controlled intersections jumps to 67%. Crashes at traffic signals are disproportionately represented; despite representing only 4% of intersections within Unincorporated Orange County, 30% of crashes, 14% of pedestrian crashes, and 24% of bicycle crashes occurred at traffic signals.

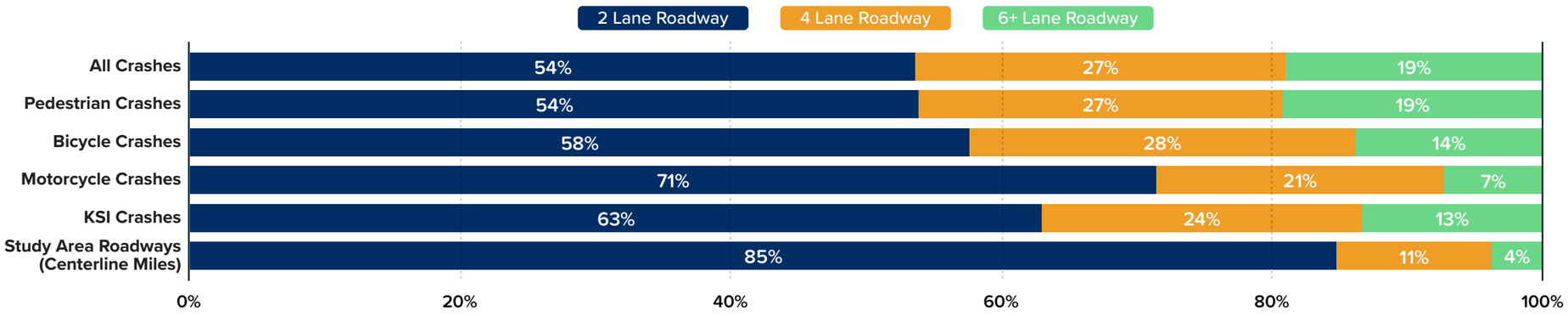


Side-street stop-controlled intersections account for a disproportionate share of crashes, particularly pedestrian crashes.

Roadway Characteristics

Number of Lanes

Roads with four or more travel lanes make up 15% of the roadway network but disproportionately account for 46% of crashes and 40% of KSI crashes. Comparatively, motorcycle crashes occur more frequently on roads with two travel lanes.

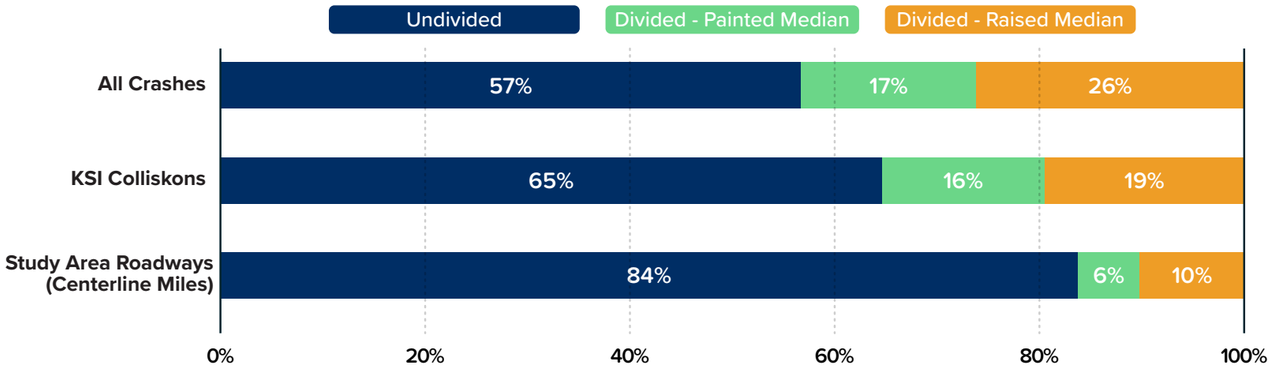


Crash risk increases with roadway width, especially for severe crashes, but motorcycle crashes are most common on two lane roads.

Divided/Undivided Median

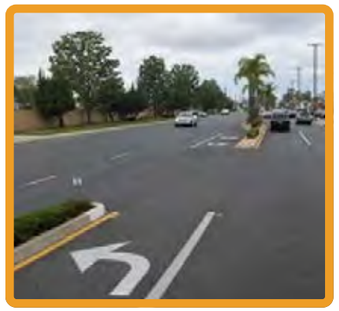
Divided roadways with raised medians experience a higher percentage of total crashes relative to their share of the roadway network. This is expected, as raised medians are typically constructed on roadways with higher traffic volumes and more travel lanes—conditions that naturally generate a larger number of overall crashes.

However, when comparing all crashes to KSI crashes, the graphic shows that raised-median corridors experience a lower proportion of KSI crashes. This indicates that while these roadways may see more crashes in total due to higher exposure, the presence of a raised median reduces the likelihood that a crash will result in severe or fatal injury.



Undivided

Divided - Painted Median

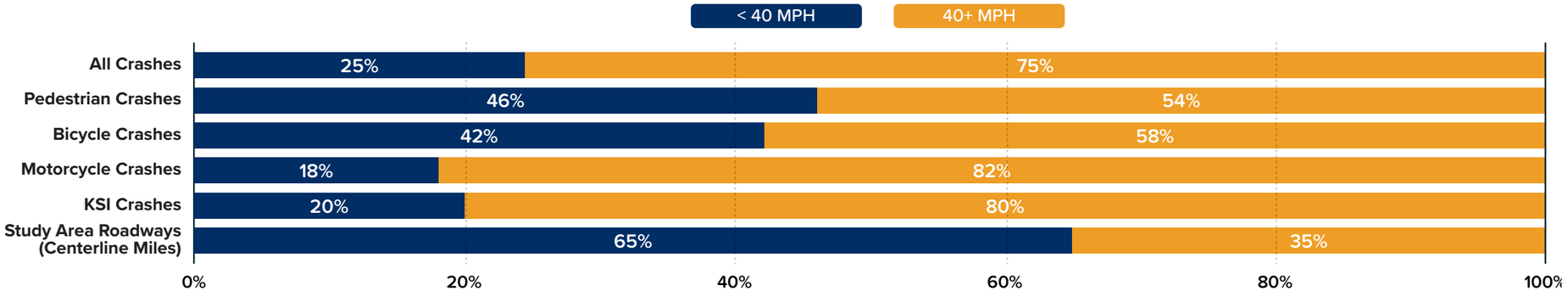


Divided - Raised Median

Roadway Characteristics

Observed Speed

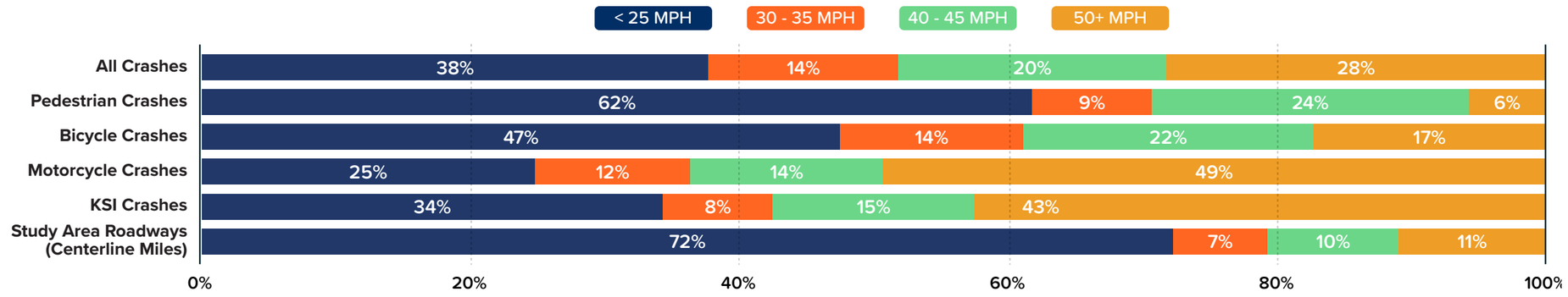
Roadways with an average observed speed of 40+ mph make up for 35% of the roadway network but disproportionately account for 75% of crashes, 80% of KSI crashes, and 82% of motorcycle-involved injury crashes. Observed speed data are sourced from Wejo vehicle probe data and reflect the daily 85th-percentile speed (i.e., the speed at or below which 85% of observed vehicles travel each day).



Roadways with observed speeds of 40+ mph make up a smaller share of the network but account for a disproportionate share of crashes and severe injuries, especially motorcycle and KSI crashes.

Posted Speed

Roadways with a posted speed limit of 40+ mph make up for 21% of the roadway network but disproportionately account for 48% of crashes, 58% of KSI crashes, and 63% of motorcycle-involved injury crashes.

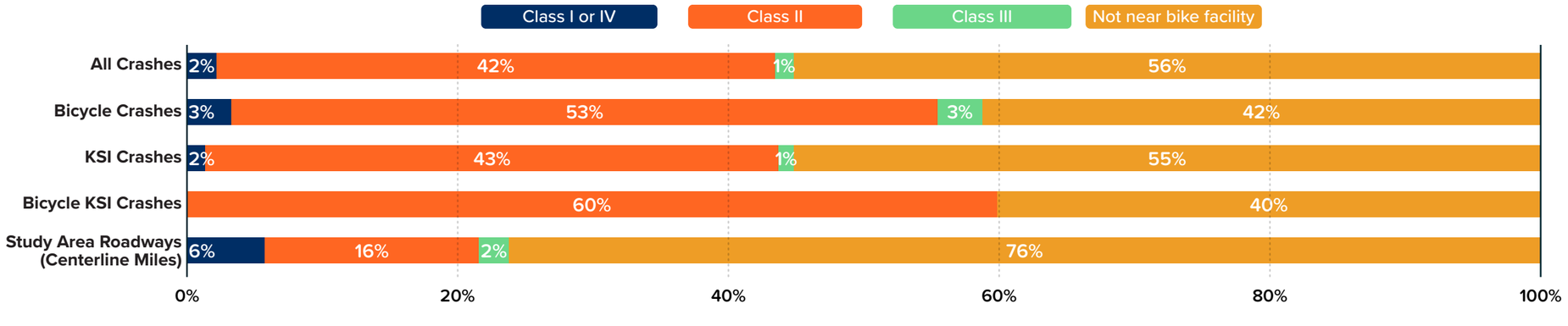


Higher posted speed limits are associated with a greater share of crashes and severe outcomes, even though these roadways represent a relatively small portion of the roadway network.

Transportation Infrastructure

Proximity to Bike Lanes

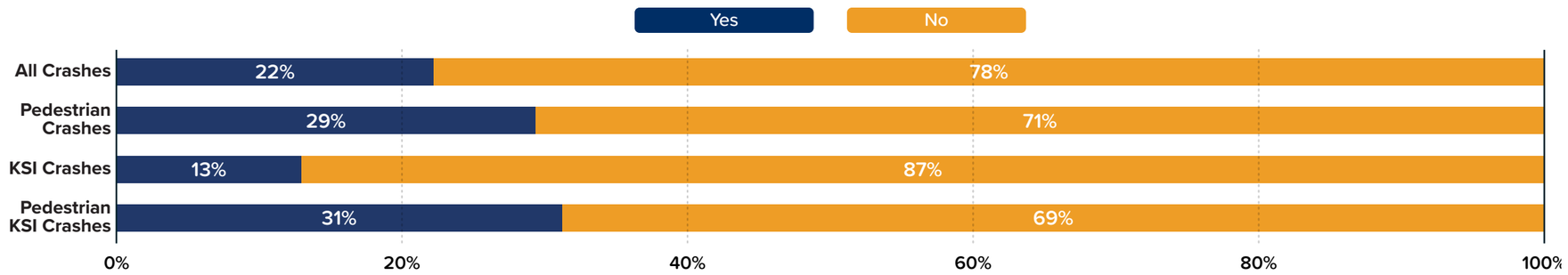
People biking are more likely to use roadways with bicycle facilities. 45% of crashes and 45% of KSI crashes occurred on a roadway with a bicycle facility. In comparison, 60% of bicycle crashes and 60% of bicycle KSI crashes occurred on a roadway with a bicycle facility. Bicycle crashes on roadways with protected bicycle facilities (Class I or IV) tend to be less severe.



Most bicycle crashes occur on roadways with bike facilities, reflecting higher bicycle activity. Crashes on roadways with protected facilities tend to be less severe.

Proximity to Bus Stops

Areas near bus stops generally have higher pedestrian activity as people are traveling to and from transit. Crash victims are more often male: men account for 54% of drivers/passengers, 63% of pedestrian victims, and 69% of bicycle victims, even though they make up about 50% of the County of Orange (incorporated and unincorporated) population.

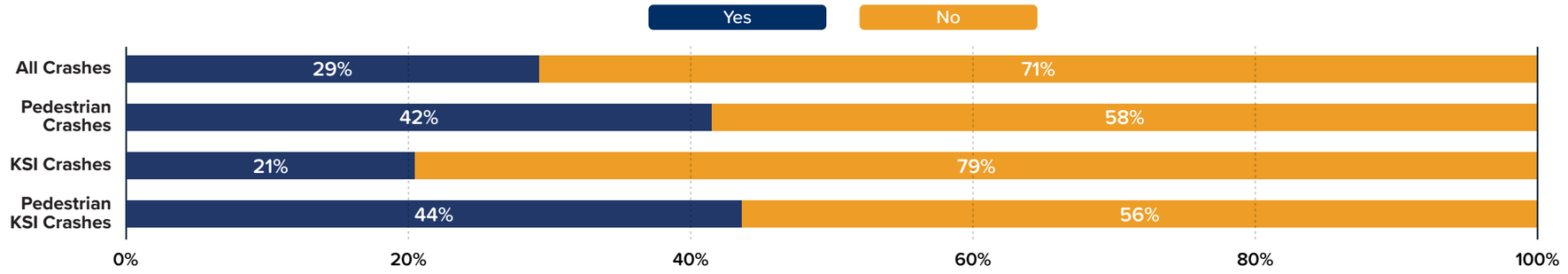


Most crashes occur away from bus stops, but pedestrian crashes are more common near bus stops, where pedestrian activity is higher.

Land Use

Proximity to Schools

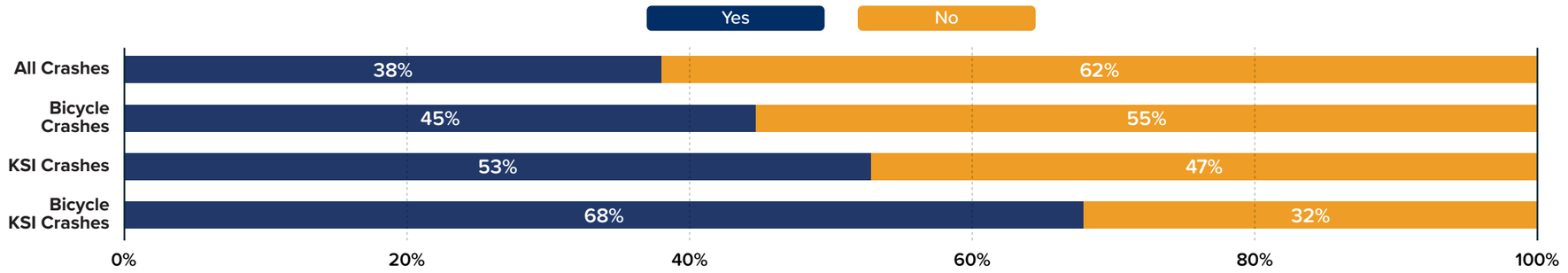
Schools have higher pedestrian activity, especially during arrival and dismissal periods. 29% of crashes and 21% of KSI crashes occurred within 1,500 feet of a school. In comparison, 42% of pedestrian crashes and 44% of pedestrian KSI crashes occurred within 1,500 feet of a school. Crashes involving people walking are disproportionately overrepresented near schools.



Pedestrian crashes and severe injuries are disproportionately concentrated near schools, reflecting higher walking activity during arrival and dismissal periods.

Proximity to Parks

Parks have higher bicyclist activity. 38% of crashes and 53% of KSI crashes occurred within 1,000 feet of a park. In comparison, 45% of bicycle crashes and 68% of bicycle KSI crashes occurred within 1,000 feet of a park. Crashes involving people biking are disproportionately overrepresented near parks.

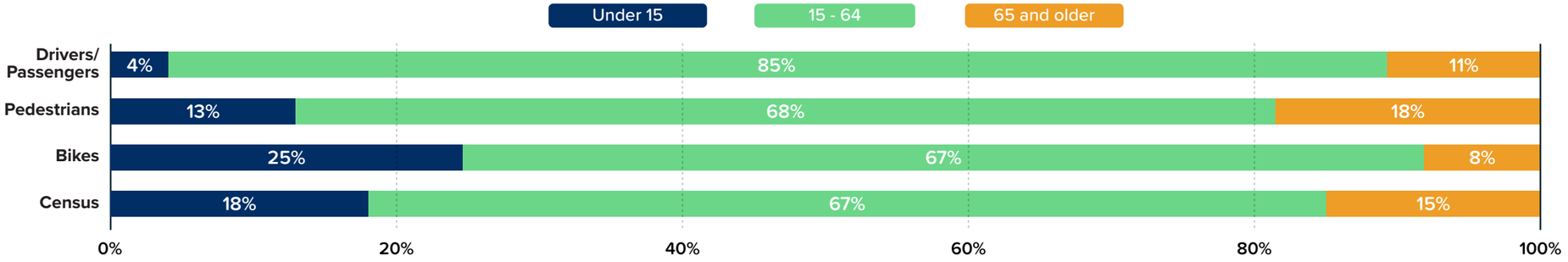


Bicycle crashes and severe injuries are more common near parks, where bicyclist activity is higher.

Demographics and Geography

Victim Profile by Age

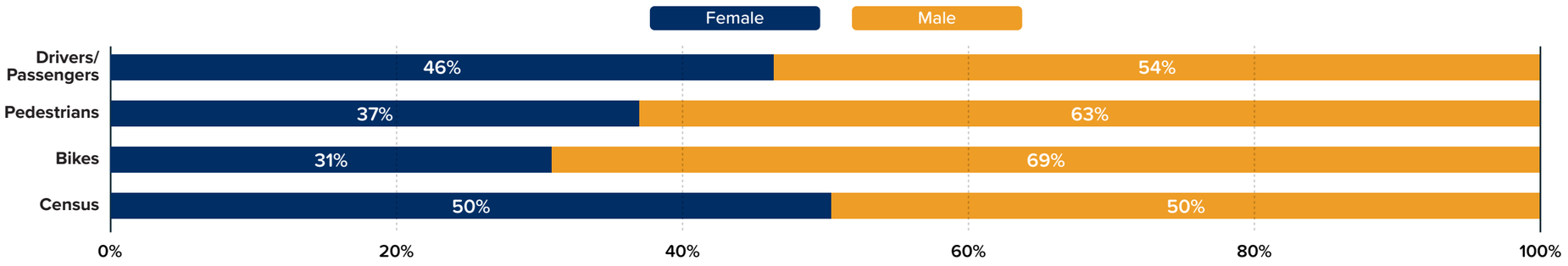
Vulnerable age groups (i.e., younger children and older adults) experience a disproportionate share of crashes in Orange County. People under the age of 15 make up 18% of the County of Orange population (incorporated and unincorporated) but represent 25% of the victims of bicycle crashes. Additionally, people over the age of 64 represent 15% of the County of Orange population (incorporated and unincorporated) yet represent 18% of the victims of pedestrian crashes.



Children and older adults experience a disproportionate share of pedestrian and bicycle crash injuries compared to their share of the population.

Victim Profile by Sex

Crash victims are more often male: men account for 54% of drivers/passengers, 63% of pedestrian victims, and 69% of bicycle victims, even though they make up about 50% of the County of Orange (incorporated and unincorporated) population.

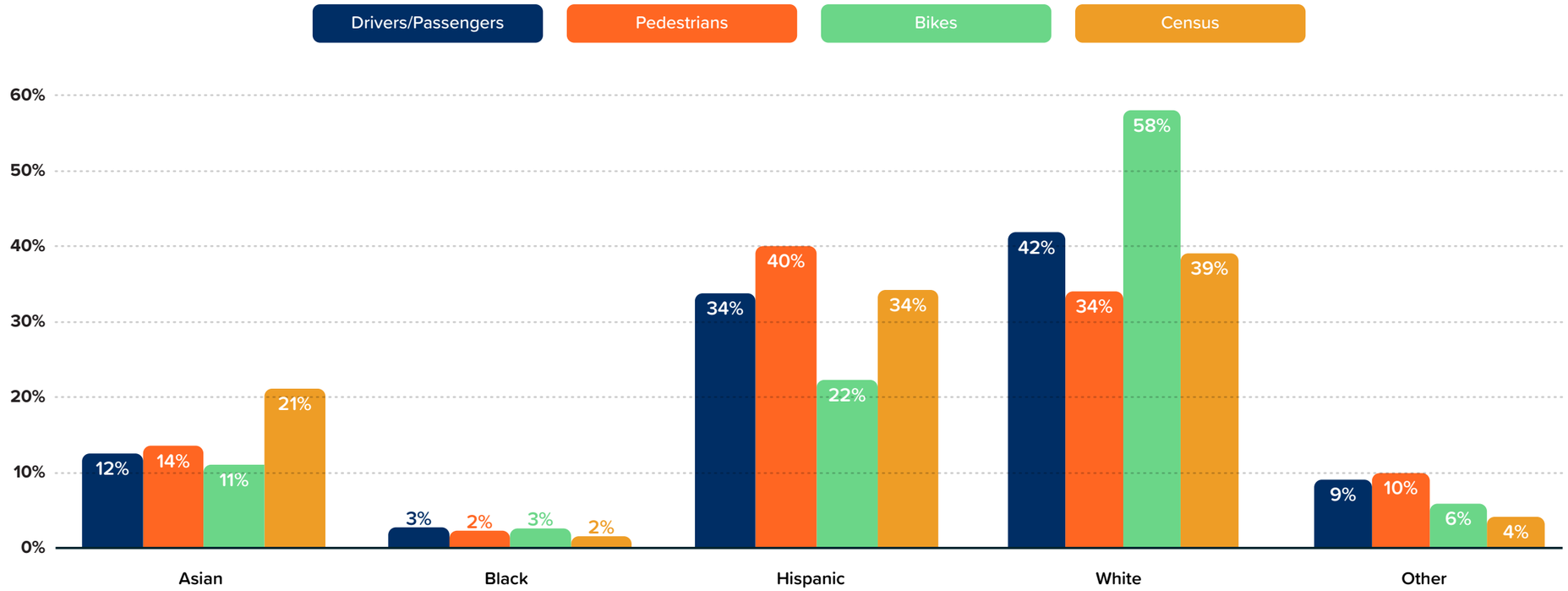


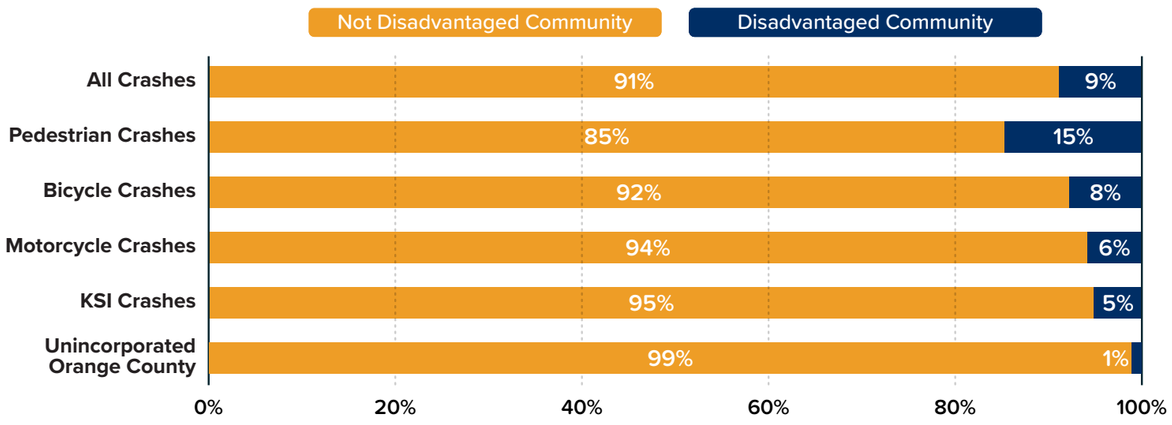
Men account for a higher share of crash victims across all modes, particularly among pedestrians and bicyclists.

Demographics and Geography

Victim Profile by Race

Victim race is determined at the discretion of the reporting officer and is only reported at the party level. This means that if people of multiple races are present in a vehicle, only the driver's race will be reported. Additionally, not all roadway users live within Orange County, and racial breakdown of crash victims may be further influenced by regional demographics.





Disadvantaged Communities

In the State of California, disadvantaged communities are defined as census tracts that experience the greatest burdens from a combination of economic, health, and environmental challenges. These include factors such as poverty, high unemployment, air and water pollution, hazardous waste exposure, and elevated rates of asthma and heart disease. Disadvantaged Communities within Unincorporated Orange County include Dale/Augusta Island and portions of Midway City.

Although less than 1% of roadways in Unincorporated Orange County are within state-designated disadvantaged communities, these areas account for a disproportionately high share of crashes: 9% of all reported crashes and 15% of pedestrian crashes.

Safety Focus Areas

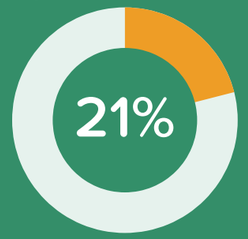
Crashes were mapped to identify intersections and roadways with the highest concentration of KSI crashes. The purpose of establishing Safety Focus Areas is to prioritize locations that experience a disproportionate share of KSI crashes, enabling focused investments in safety improvements where they are most needed. Although SR-74 is included in the overall study area as it intersects with numerous local roadways within unincorporated areas, it was excluded from the development of Safety Focus Areas to target County-maintained roadways and intersections.

Safety Focus Areas prioritize locations that experience a disproportionate share of KSI crashes, enabling focused investments in safety improvements where they are most needed.

Comprehensive Safety Focus Area

Reflective of County-maintained roadways and intersections where the highest concentrations of KSI crashes have occurred involving any mode of travel.

Percentage of County-maintained roadways:



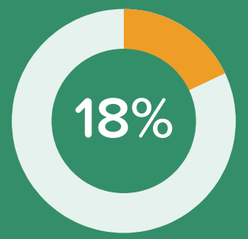
All KSI crashes:

A relatively **small** portion of the County-maintained roadway system, which excludes SR-74 (**21%**), accounts for nearly **70%** of KSI crashes in unincorporated Orange County.

Non-motorized Safety Focus Area ("Safety Corridors")

Reflective of County-maintained roadways and intersections with the highest concentrations of KSI crashes involving pedestrians and bicyclists.

Percentage of County-maintained roadways:



Pedestrian and bicycle KSI crashes:

This concentration is even **more pronounced** for pedestrians and bicyclists, as **88%** of their KSI crashes occurred on only **18%** of County-maintained roadways.

California Assembly Bill 43 - Safety Corridors

Prior to California Assembly Bill (AB) 43, speed limits were primarily determined by the "85th%ile rule". This traditional traffic engineering method sets speed limits based on the speed at or below which 85% of drivers travel in free-flowing conditions, under the assumption that most drivers choose safe and reasonable speeds.

AB 43 grants cities and counties greater flexibility to proactively lower speed limits in areas with high crash risk. The law prioritizes safety improvements for vulnerable road users such as pedestrians, bicyclists, seniors, children, and transit riders, who are disproportionately affected by high-speed crashes. Under AB 43, local jurisdictions may designate up to one-fifth (20%) of their local roads as Safety Corridors.

Within these Safety Corridors, local agencies are empowered to reduce speed limits by up to 5 mph below what would traditionally be allowed. This provides a powerful tool to reduce severe crashes and enhance safety on the most dangerous roadways.

California Assembly Bill 43 prioritizes safety improvements for vulnerable road users such as pedestrians, bicyclists, seniors, children, and transit riders, who are disproportionately affected by high-speed crashes.

Orange County Unincorporated Communites

Unincorporated Orange County includes areas in Orange County, California, that are not governed by a local municipality (a city or town) and are instead governed directly by the County. These areas include residential neighborhoods, commercial zones, and rural lands that rely on the County for municipal services such as law enforcement, public works, and land use planning.

- Anaheim Island
- Andora/Fairhope Island
- Beach/McFadden Island
- Bolsa/Pacific Island
- Costa Mesa Island
- Country Club Island
- Dale/Augusta Island
- Dana Point Harbor
- El Modena Islands
- Fairlynn Island
- Fountain Valley Island
- John Wayne Airport
- Katella/Rustic Island
- Ladera Ranch
- Las Flores
- Lincoln/Glassell Island
- Orange Park Acres
- Mac/Syracuse Island
- McFadden/Monroe
- Midway City
- Modjeska Canyon
- North Tustin
- Olive Heights
- Rancho Mission Viejo
- Rossmoor
- Santa Ana Country Club
- Santa Ana River Bridges
- Santiago Canyon Road
- Santiago Creek Island
- Silverado Canyon
- Trabuco Canyon
- Wagon Wheel

1 Northeast Communities

Country Club, Fairlynn, Lincoln/Glassell, Olive Heights, and Santiago Creek Islands

Key Takeaway: Over a third of crashes in the Northeast Communities are due to **unsafe vehicle speeds**.

Injury Crash Summary (2019 - 2023)

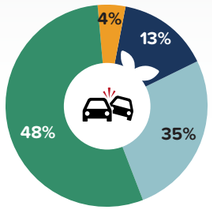
46 Total Injury Crashes

2 Pedestrian Crashes **(100% KSI)**

1 Bike Crashes **(0% KSI)**

2 Motorcycle Crashes **(50% KSI)**

Crash Severity



- **2** Fatal
- **6** Severe Injury
- **16** Other Visible Injury
- **22** Complaint of Pain

Impacted Populations

8 Crashes with Senior Victims (Age 65+)

4 Crashes with Youth Victims (Under age 18)

Top Violations

The most common primary causes of crashes in this community.

16 **35%** of all injury crashes caused by unsafe speed

3 **38%** of KSI crashes caused by improper turning

Top Crash Types

The most common injury-causing crash events in this community.

15 **33%** of all injury crashes were rear end

3 **38%** of KSI crashes were hit object

Behavior

7 **15%** of all injury crashes involved at-fault drivers making left turns

2 **4%** of all injury crashes were hit and runs

7 **15%** of all injury crashes were primarily caused by someone driving or bicycling under the influence of drugs or alcohol

Crash Lighting Condition

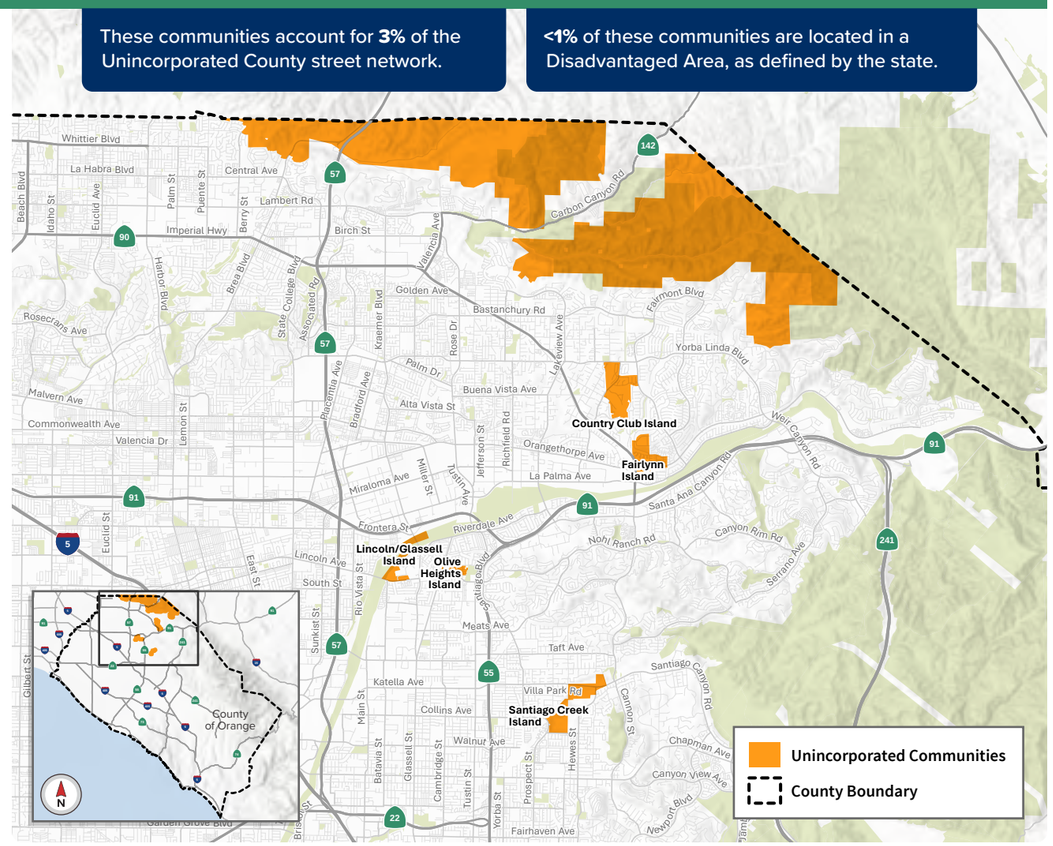
30 crashes occurred during daylight

35% 65%

16 crashes occurred at night/dusk-dawn

These communities account for **3%** of the Unincorporated County street network.

<1% of these communities are located in a Disadvantaged Area, as defined by the state.



Of all crashes within Unincorporated Orange County, this community accounts for...

3% of Total Injury Crashes

4% of KSI Crashes

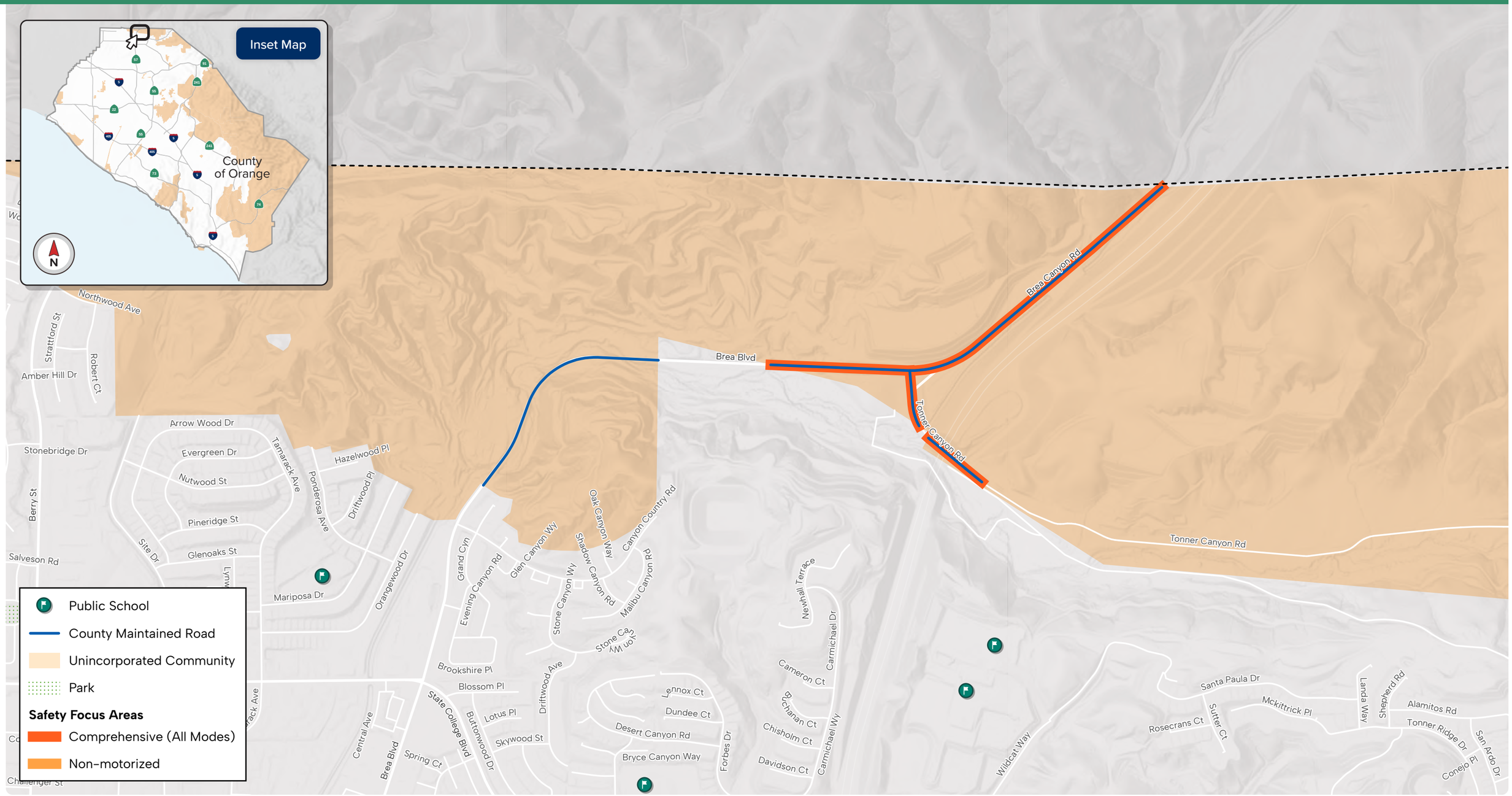
2% of Pedestrian Crashes

1% of Bike Crashes

1% of Motorcycle Crashes

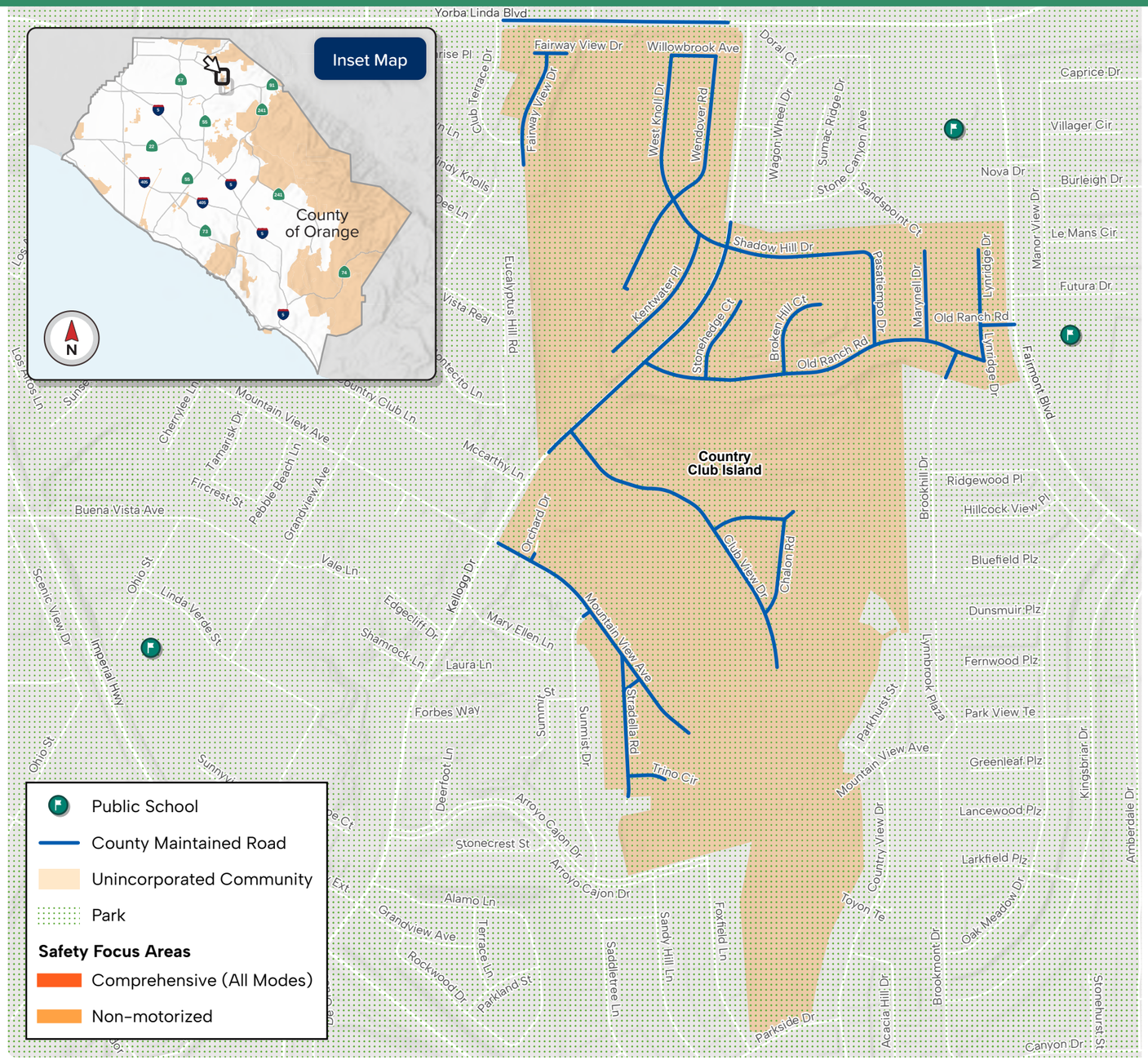
1 Northeast Communities

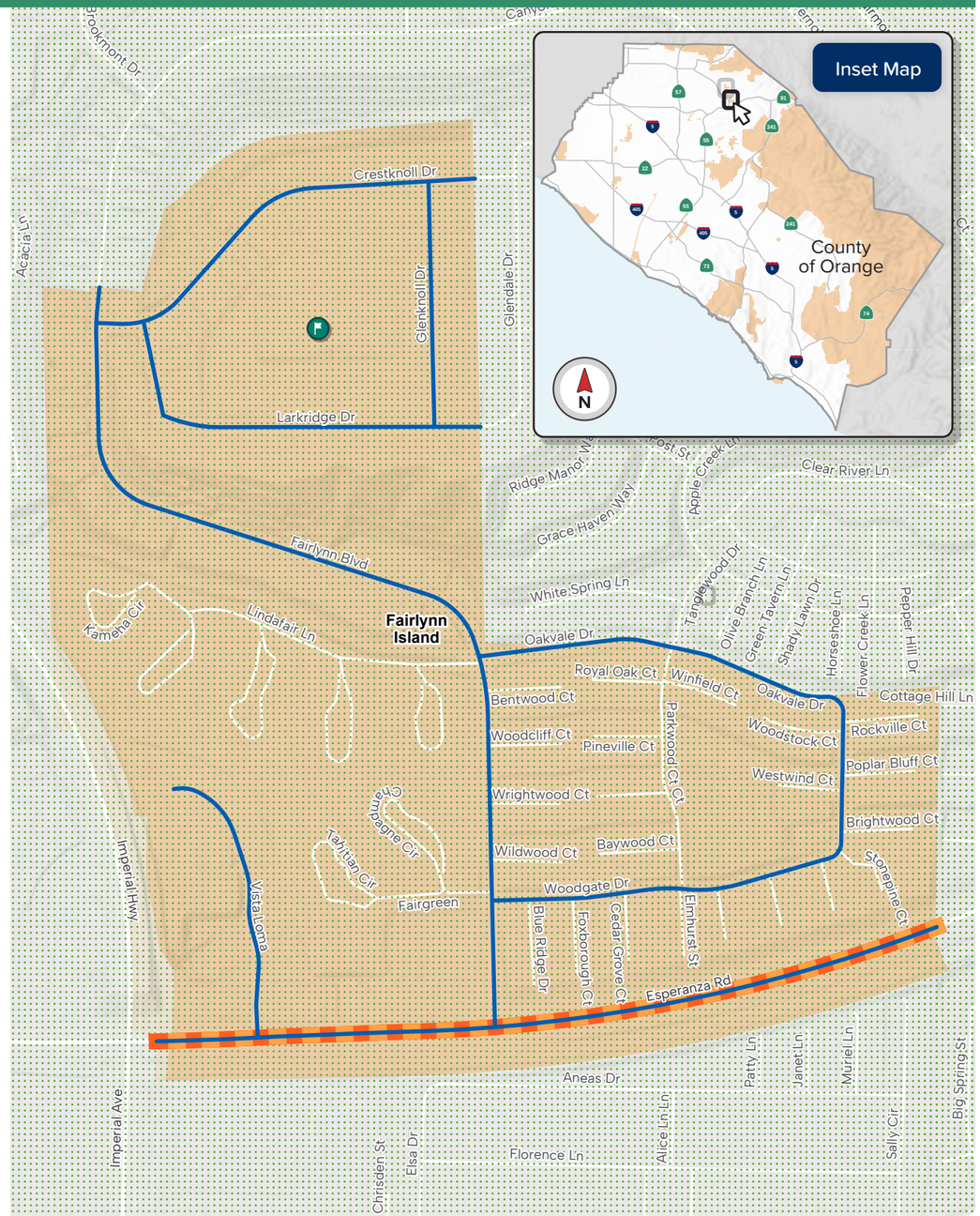
Brea Canyon/Tonner Canyon Road



1 Northeast Communities

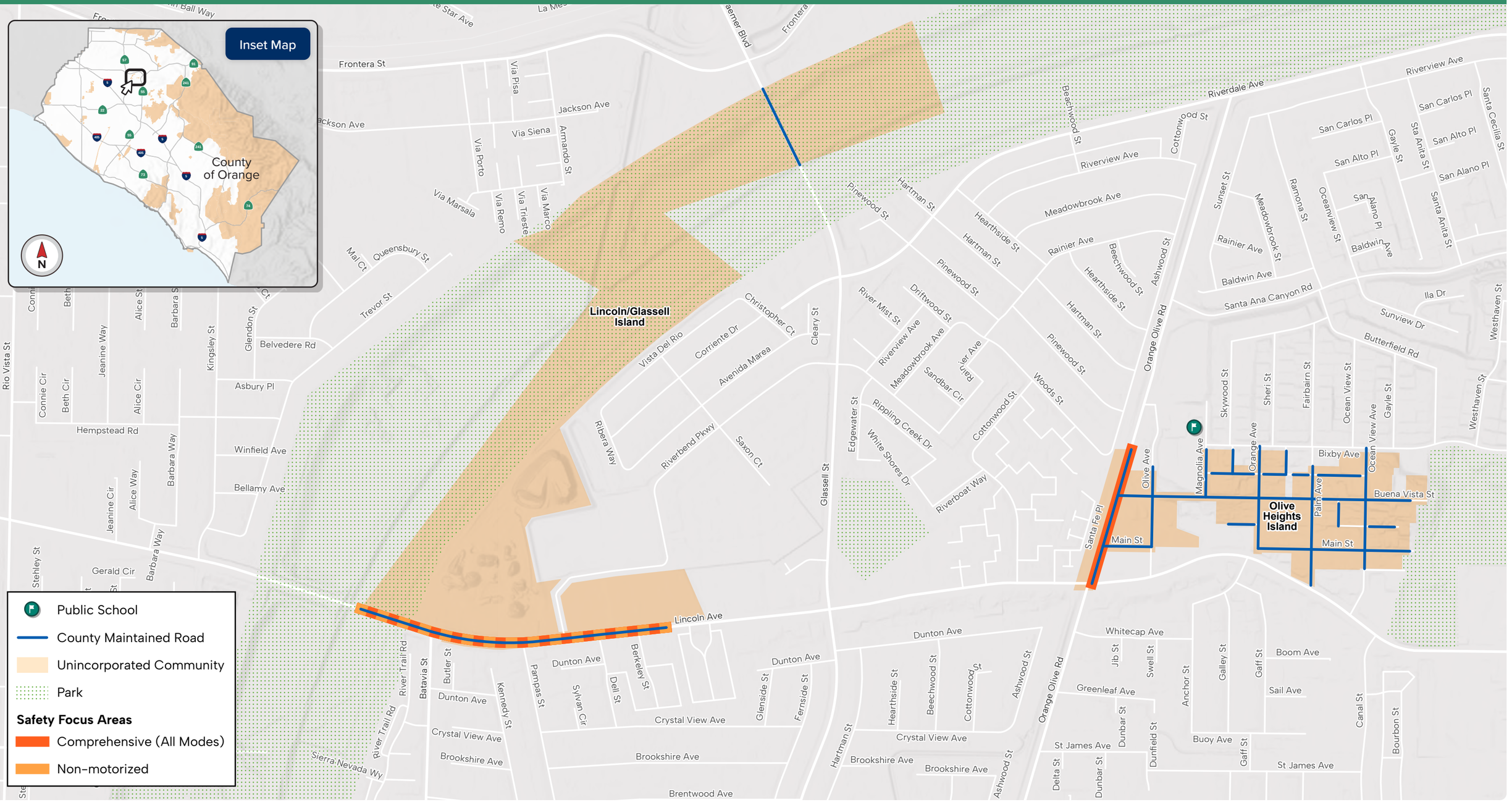
Country Club Island and Fairlynn Island





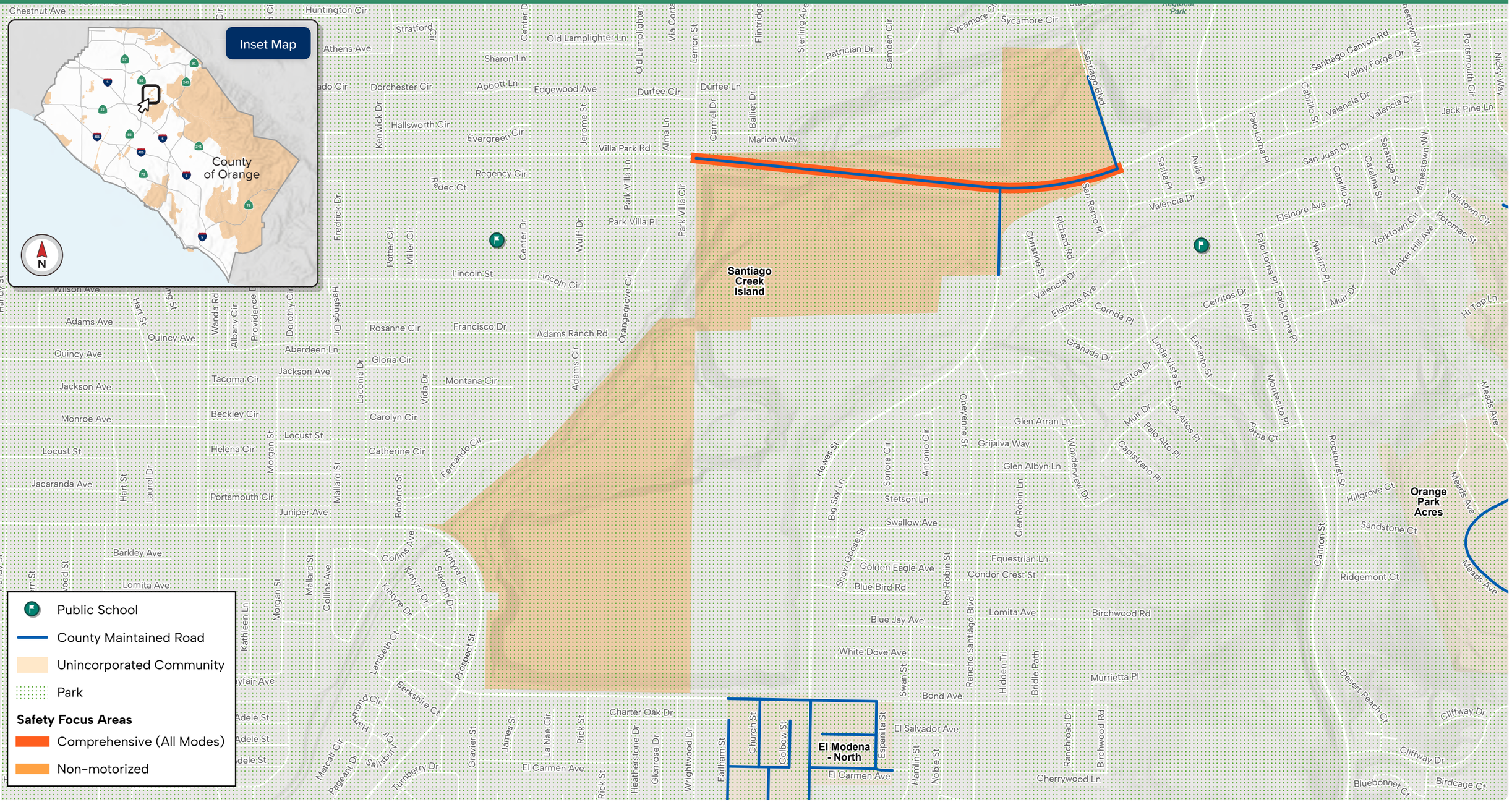
1 Northeast Communities

Lincoln/Glassell Island and Olive Heights Island



1 Northeast Communities

Santiago Creek Island



2 Anaheim Island and Surrounding Communities

Anaheim, Andora/Fairhope, Dale/Augusta, Katella/Rustic, and Mac/Syracuse Islands

Key Takeaway: Within Unincorporated Orange County, one in every five crashes in the Anaheim Island and Surrounding Communities was a **hit and run**—the highest rate of any community.

Injury Crash Summary (2019 - 2023)

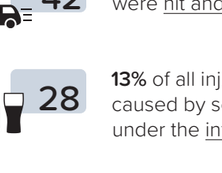
208 Total Injury Crashes

16 Pedestrian Crashes **(50% KSI)**

13 Bike Crashes **(8% KSI)**

10 Motorcycle Crashes **(20% KSI)**

Crash Severity



- **4** Fatal
- **14** Severe Injury
- **68** Other Visible Injury
- **122** Complaint of Pain

Impacted Populations

26 Crashes with Senior Victims (Age 65+)

23 Crashes with Youth Victims (Under age 18)

Top Violations

The most common primary causes of crashes in this community.

55 **26%** of all injury crashes caused by unsafe speed

7 **39%** of KSI crashes caused by pedestrian violation

Top Crash Types

The most common injury-causing crash events in this community.

69 **33%** of all injury crashes were rear end

8 **44%** of KSI crashes were vehicle/pedestrian

Behavior

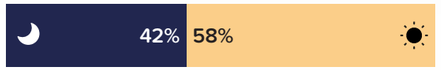
27 **13%** of all injury crashes involved at-fault drivers making left turns

42 **20%** of all injury crashes were hit and runs

28 **13%** of all injury crashes were primarily caused by someone driving or bicycling under the influence of drugs or alcohol

Crash Lighting Condition

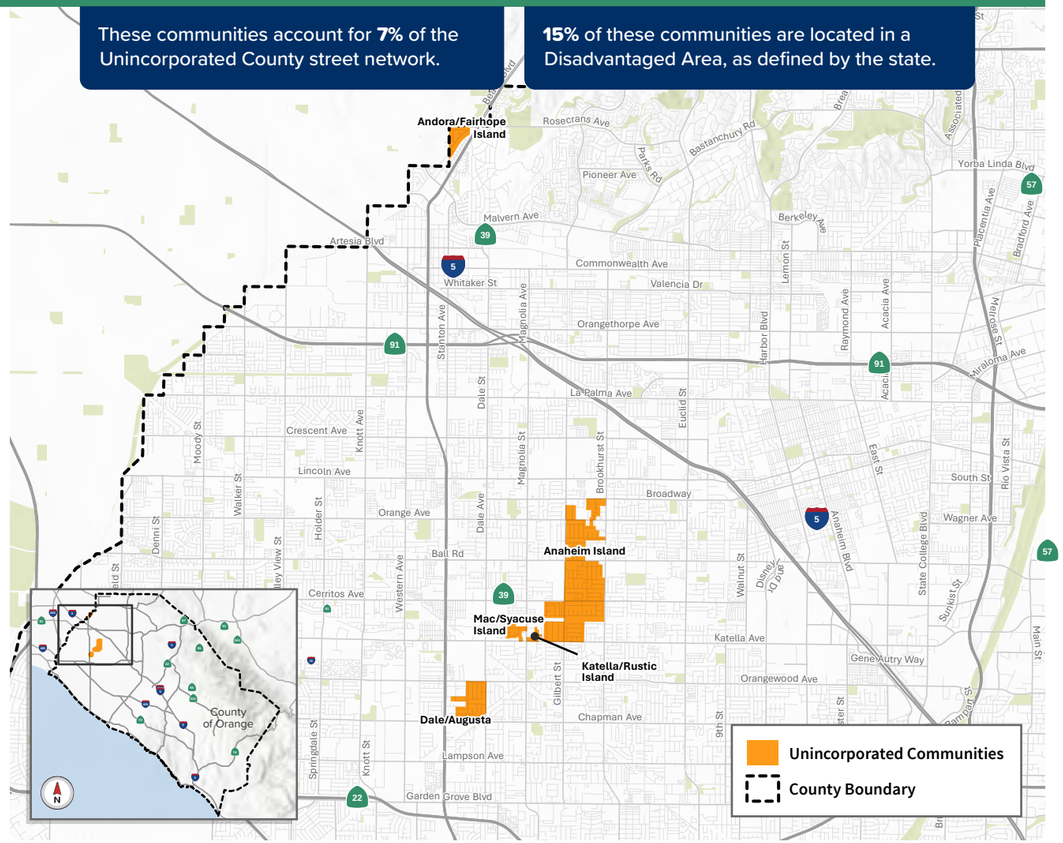
121 crashes occurred during daylight



87 crashes occurred at night/dusk-dawn

These communities account for **7%** of the Unincorporated County street network.

15% of these communities are located in a Disadvantaged Area, as defined by the state.



Of all crashes within Unincorporated Orange County, this community accounts for...

14% of Total Injury Crashes

9% of KSI Crashes

18% of Pedestrian Crashes

11% of Bike Crashes

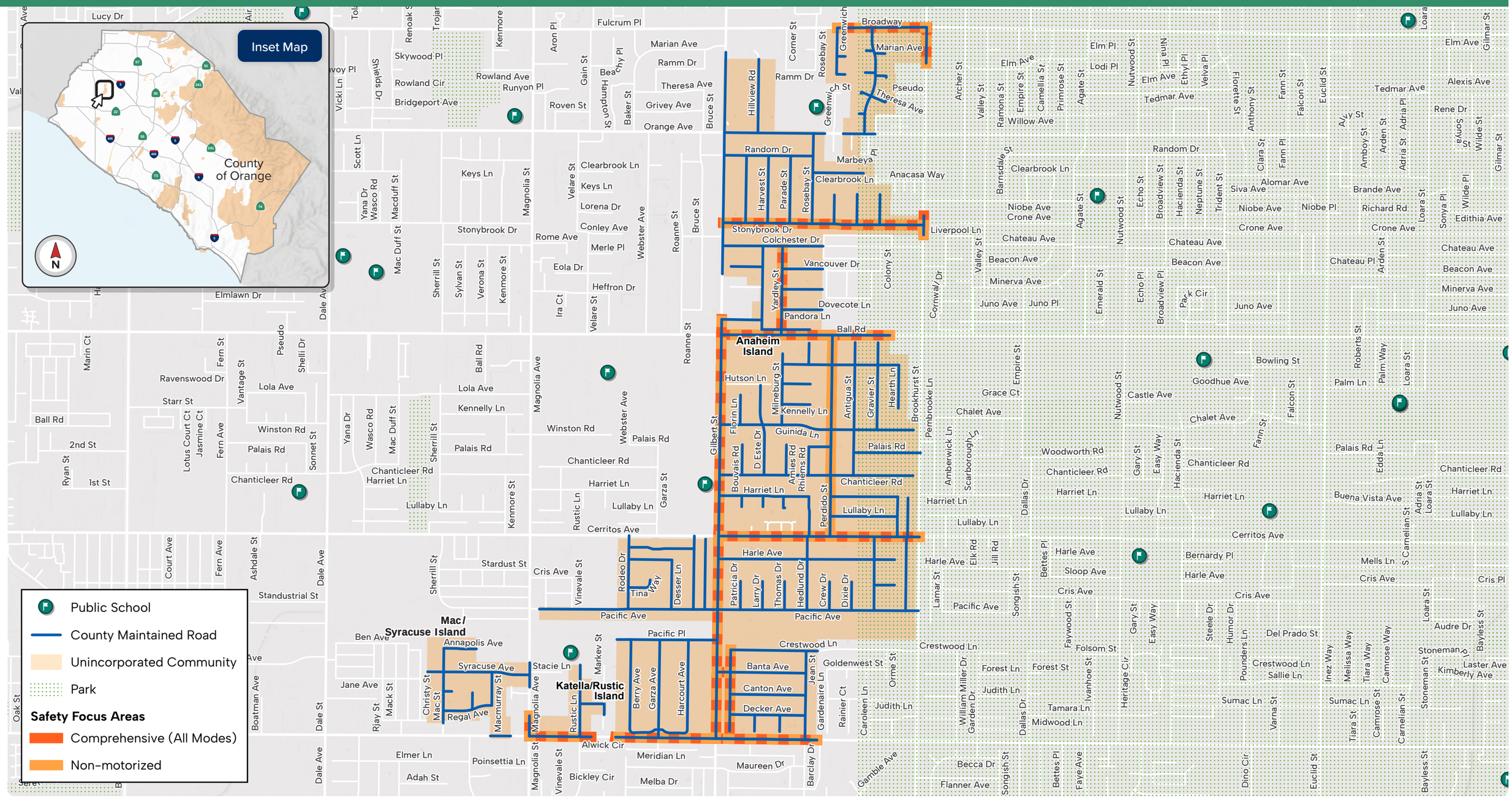
7% of Motorcycle Crashes

2 Anaheim Island and Surrounding Communities

Andora/Fairhope Island

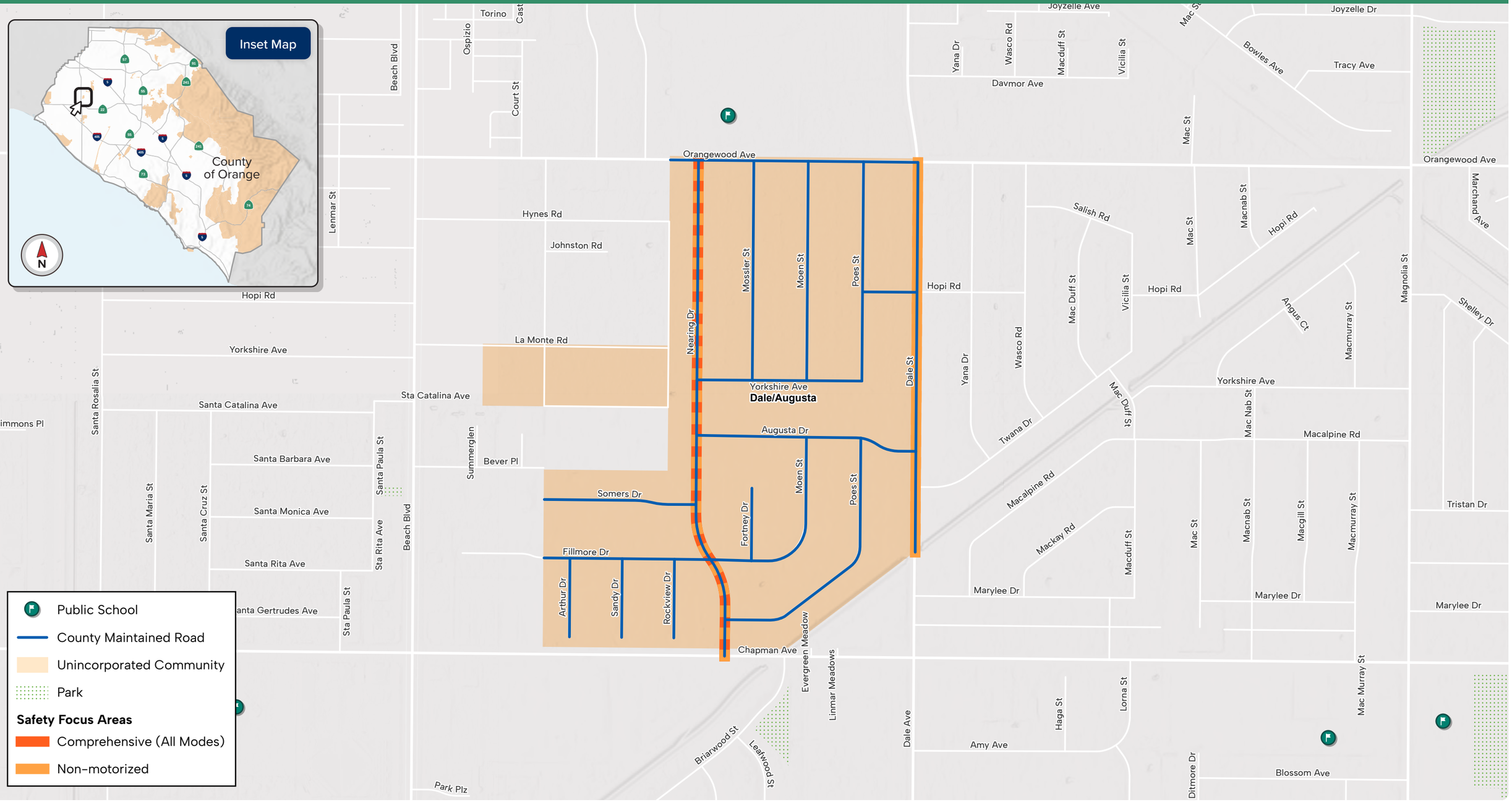
2 Anaheim Island and Surrounding Communities

Anaheim, Katella/Rustic Island, and Mac/Syracuse Island



2 Anaheim Island and Surrounding Communities

Dale/Augusta Island



3 Rossmoor

Key Takeaway: Within Unincorporated Orange County, Rossmoor has the highest proportion of crashes involving **senior victims** (26%) and **youth victims** (23%).

Injury Crash Summary (2019 - 2023)

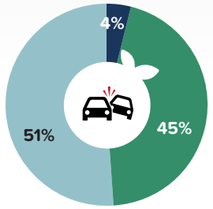
47 Total Injury Crashes

8 Pedestrian Crashes **(25% KSI)**

6 Bike Crashes **(0% KSI)**

1 Motorcycle Crashes **(0% KSI)**

Crash Severity



- **0** Fatal
- **2** Severe Injury
- **24** Other Visible Injury
- **21** Complaint of Pain

Impacted Populations

12 Crashes with Senior Victims (Age 65+)

11 Crashes with Youth Victims (Under age 18)

Top Violations

The most common primary causes of crashes in this community.

11 **23%** of all injury crashes caused by automobile right of way violation

1 **50%** of KSI crashes caused by pedestrian right of way violation

Top Crash Types

The most common injury-causing crash events in this community.

18 **38%** of all injury crashes were broadside

2 **100%** of KSI crashes were vehicle/pedestrian

Behavior

7 **15%** of all injury crashes involved at-fault drivers making left turns

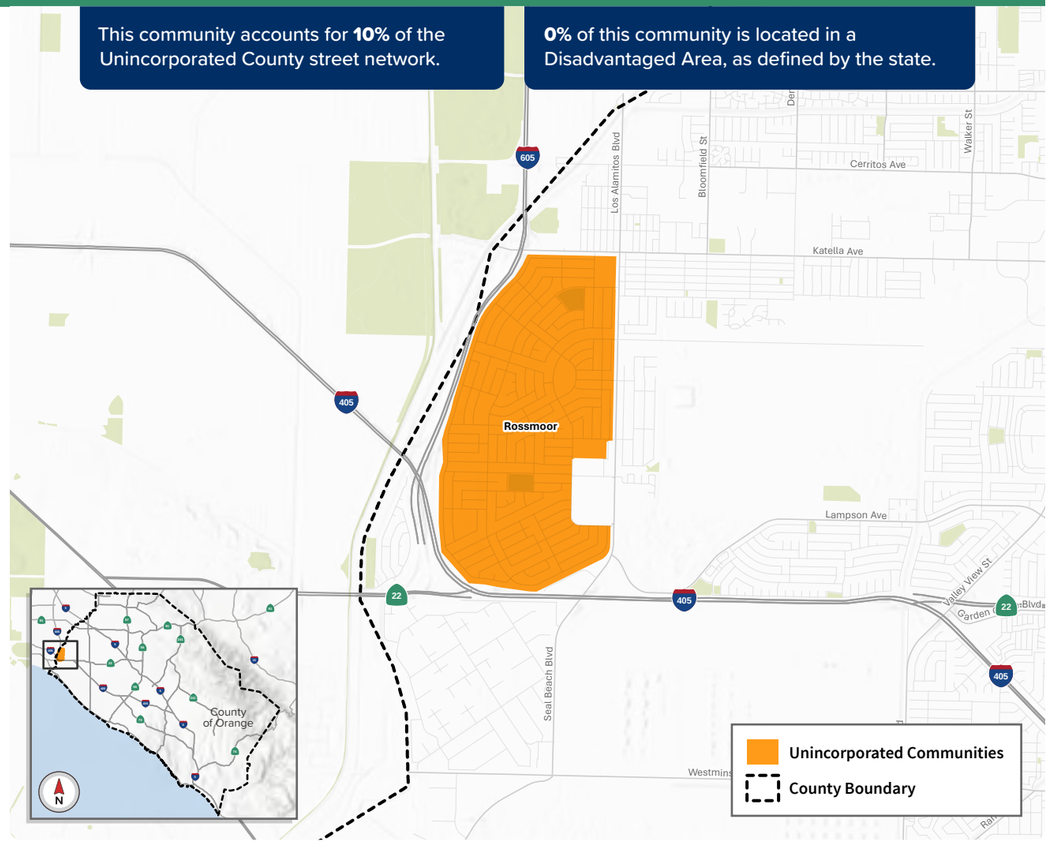
4 **9%** of all injury crashes were hit and runs

2 **4%** of all injury crashes were primarily caused by someone driving or bicycling under the influence of drugs or alcohol

Crash Lighting Condition

39 crashes occurred during daylight

8 crashes occurred at night/dusk-dawn



Of all crashes within Unincorporated Orange County, this community accounts for...

3% of Total Injury Crashes

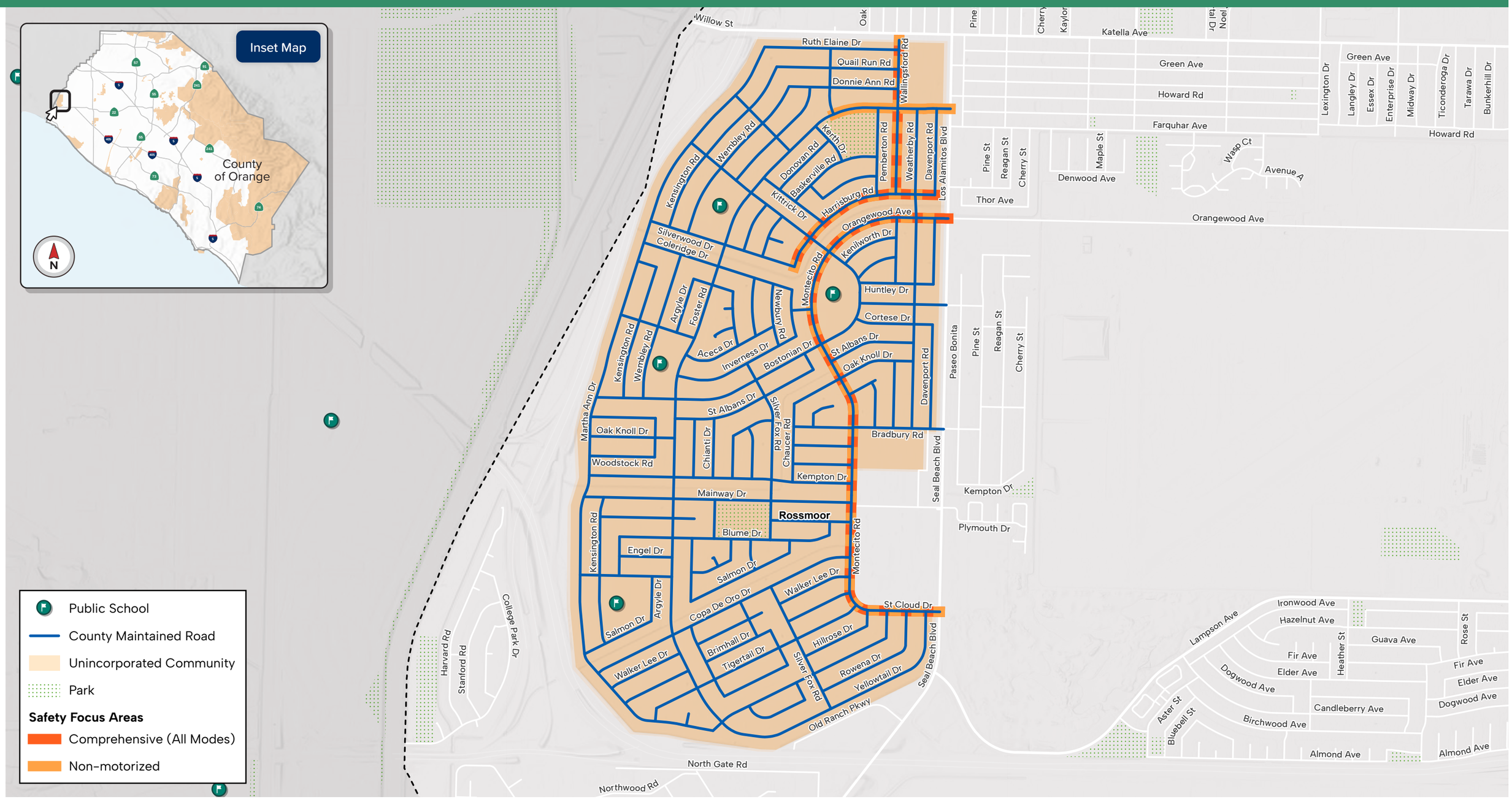
1% of KSI Crashes

9% of Pedestrian Crashes

5% of Bike Crashes

1% of Motorcycle Crashes

3 Rossmoor


Inset Map
County of Orange
N
Willow St
Ruth Elaine Dr
Quail Run Rd
Donnie Ann Rd
Wallingsford Rd
Katella Ave
Green Ave
Howard Rd
Farquhar Ave
Lexington Dr
Langley Dr
Essex Dr
Enterprise Dr
Midway Dr
Ticonderoga Dr
Tarawa Dr
Bunkerhill Dr
Kensington Rd
Wembley Rd
Donovan Rd
Baskerville Rd
Kittrick Dr
Keith Dr
Pemberton Rd
Weatherby Rd
Davenport Rd
Los Alamitos Blvd
Harrisburg Rd
Orangewood Ave
Kenilworth Dr
Montecito Rd
Huntley Dr
Cortese Dr
St Albans Dr
Oak Knoll Dr
Bradbury Rd
Kempton Dr
Mainway Dr
Rossmoor
Blume Dr
Engel Dr
Salmon Dr
Walker Lee Dr
Copa De Oro Dr
Brimhall Dr
Tigertail Dr
Hillrose Dr
Rowena Dr
Yellowtail Dr
St Cloud Dr
Old Ranch Pkwy
Seal Beach Blvd
Silver Fox Rd
Chaucer Rd
Chianti Dr
Woodstock Rd
Martha Ann Dr
Argyle Dr
Foster Rd
Newbury Rd
Aceca Dr
Inverness Dr
Bostonian Dr
Silverwood Dr
Coleridge Dr
Pine St
Reagan St
Cherry St
Maple St
Denwood Ave
Thor Ave
Wasp Ct
Avenue A
Paseo Bonita
Harvard Rd
Stanford Rd
College Park Dr
North Gate Rd
Northwood Rd
Lampson Ave
Ironwood Ave
Hazelnut Ave
Guava Ave
Rose St
Heather St
Fir Ave
Elder Ave
Dogwood Ave
Candleberry Ave
Birchwood Ave
Aster St
Bluebell St
Almond Ave
Public School
County Maintained Road
Unincorporated Community
Park
Safety Focus Areas
Comprehensive (All Modes)
Non-motorized

4 El Modena Island

Key Takeaway: El Modena is the only community in Unincorporated Orange County with **no fatalities or severe injuries** within the five year period.

Injury Crash Summary (2019 - 2023)

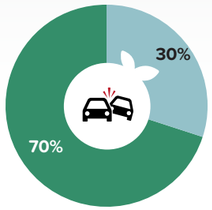
54 Total Injury Crashes

10 Pedestrian Crashes **(0% KSI)**

2 Bike Crashes **(0% KSI)**

0 Motorcycle Crashes **(0% KSI)**

Crash Severity



- **0** Fatal
- **0** Severe Injury
- **16** Other Visible Injury
- **38** Complaint of Pain

Impacted Populations

8 Crashes with Senior Victims (Age 65+)

11 Crashes with Youth Victims (Under age 18)

Top Violations

The most common primary causes of crashes in this community.

14 **26%** of all injury crashes caused by automobile right of way violation

Top Crash Types

The most common injury-causing crash events in this community.

16 **30%** of all injury crashes were broadside

Behavior

11 **20%** of all injury crashes involved at-fault drivers making left turns

4 **7%** of all injury crashes were hit and runs

8 **15%** of all injury crashes were primarily caused by someone driving or bicycling under the influence of drugs or alcohol

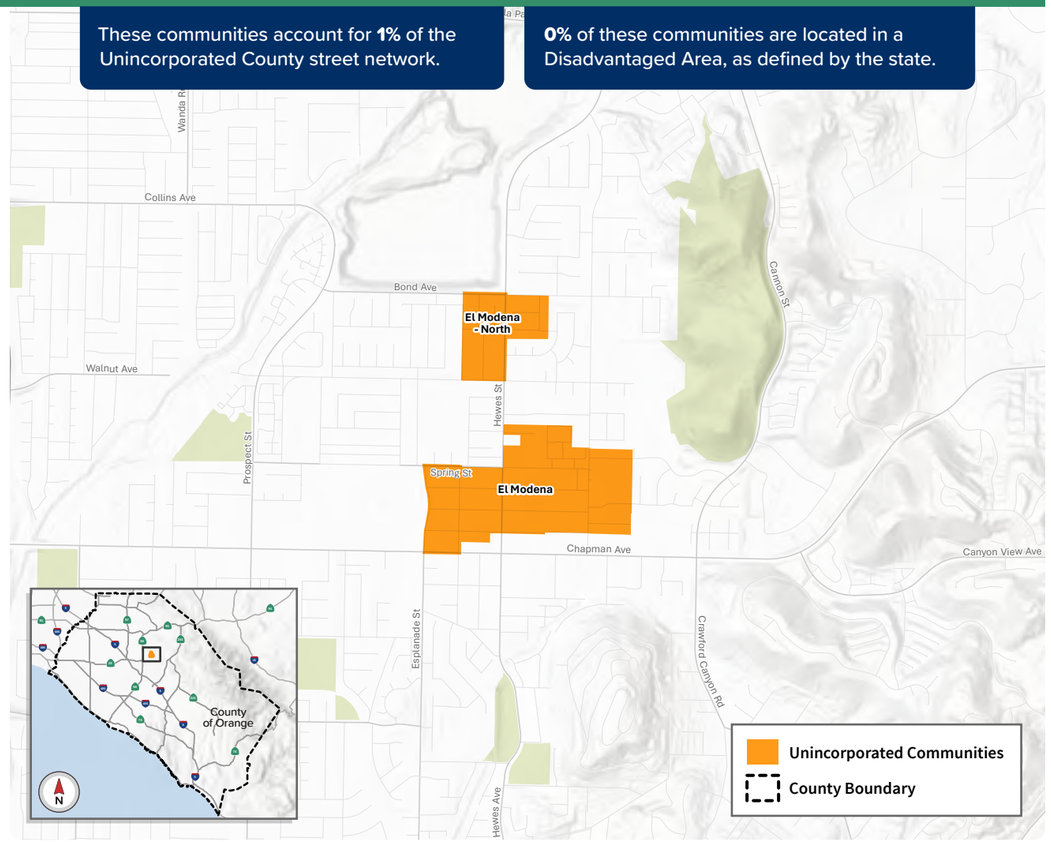
Crash Lighting Condition

37 crashes occurred during daylight

17 crashes occurred at night/dusk-dawn

These communities account for **1%** of the Unincorporated County street network.

0% of these communities are located in a Disadvantaged Area, as defined by the state.



Of all crashes within Unincorporated Orange County, this community accounts for...

4% of Total Injury Crashes

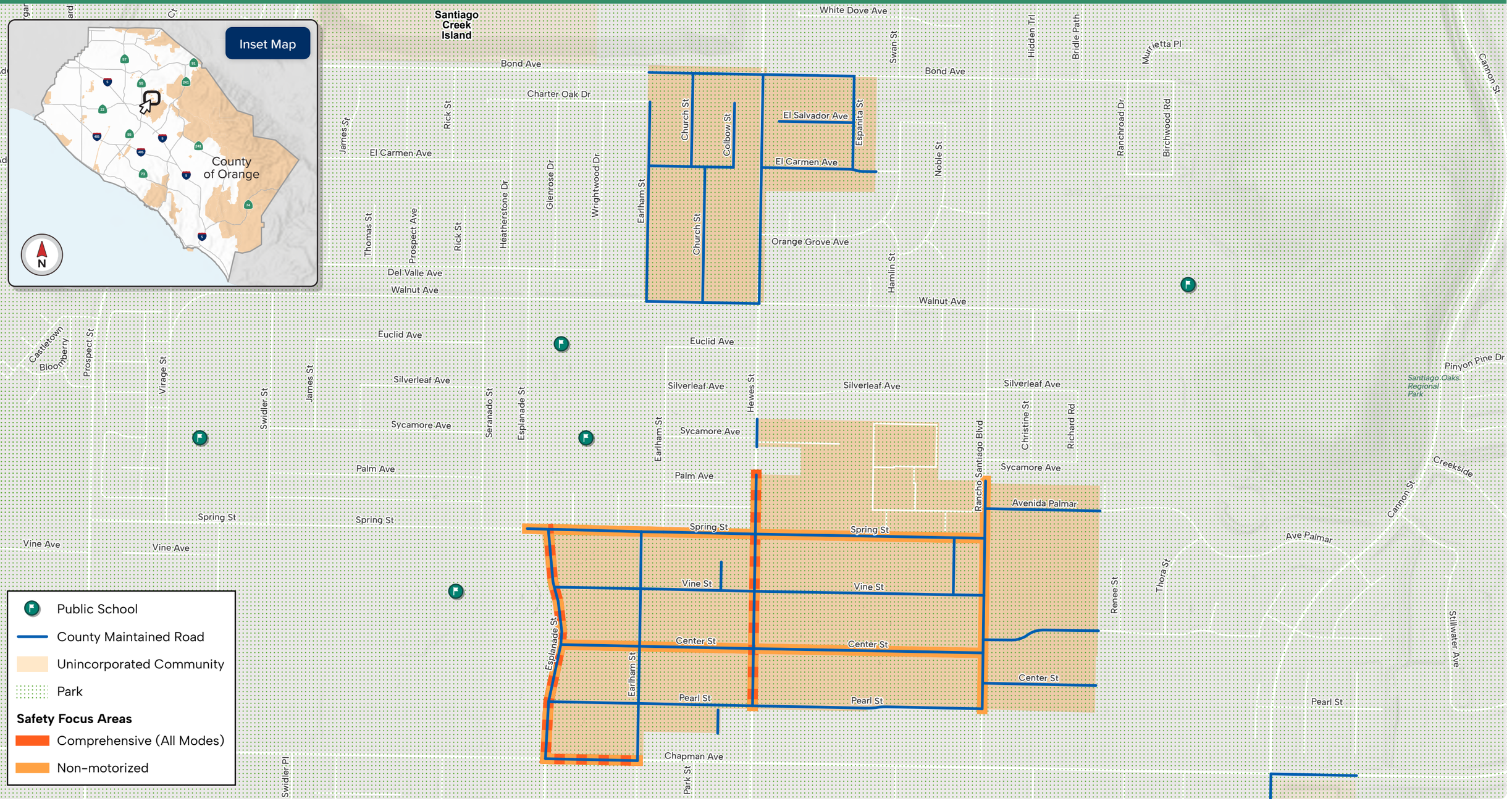
0% of KSI Crashes

11% of Pedestrian Crashes

2% of Bike Crashes

0% of Motorcycle Crashes

4 El Modena Island



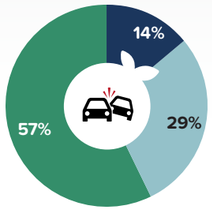
5 Orange Park Acres

Key Takeaway: Most crashes in Orange Park Acres were caused by **unsafe vehicle speed** violations.

Injury Crash Summary (2019 - 2023)

7	Total Injury Crashes	
0	Pedestrian Crashes (#% KSI)	
0	Bike Crashes (#% KSI)	
1	Motorcycle Crashes (#% KSI)	

Crash Severity



- 0 Fatal
- 1 Severe Injury
- 2 Other Visible Injury
- 4 Complaint of Pain

Impacted Populations

- 0 Crashes with Senior Victims (Age 65+)
- 0 Crashes with Youth Victims (Under age 18)

Top Violations

The most common primary causes of crashes in this community.

- 5 **71%** of all injury crashes caused by unsafe speed
- 1 **100%** of KSI crashes caused by automobile right of way violation

Top Crash Types

The most common injury-causing crash events in this community.

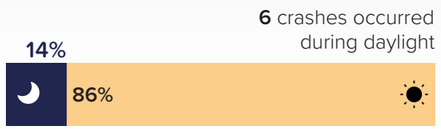
- 5 **71%** of all injury crashes were rear end
- 1 **100%** of KSI crashes were broadside

Behavior

- 1 **14%** of all injury crashes involved at-fault drivers making left turns
- 0 **0%** of all injury crashes were hit and runs
- 0 **0%** of all injury crashes were primarily caused by someone driving or bicycling under the influence of drugs or alcohol

Crash Lighting Condition

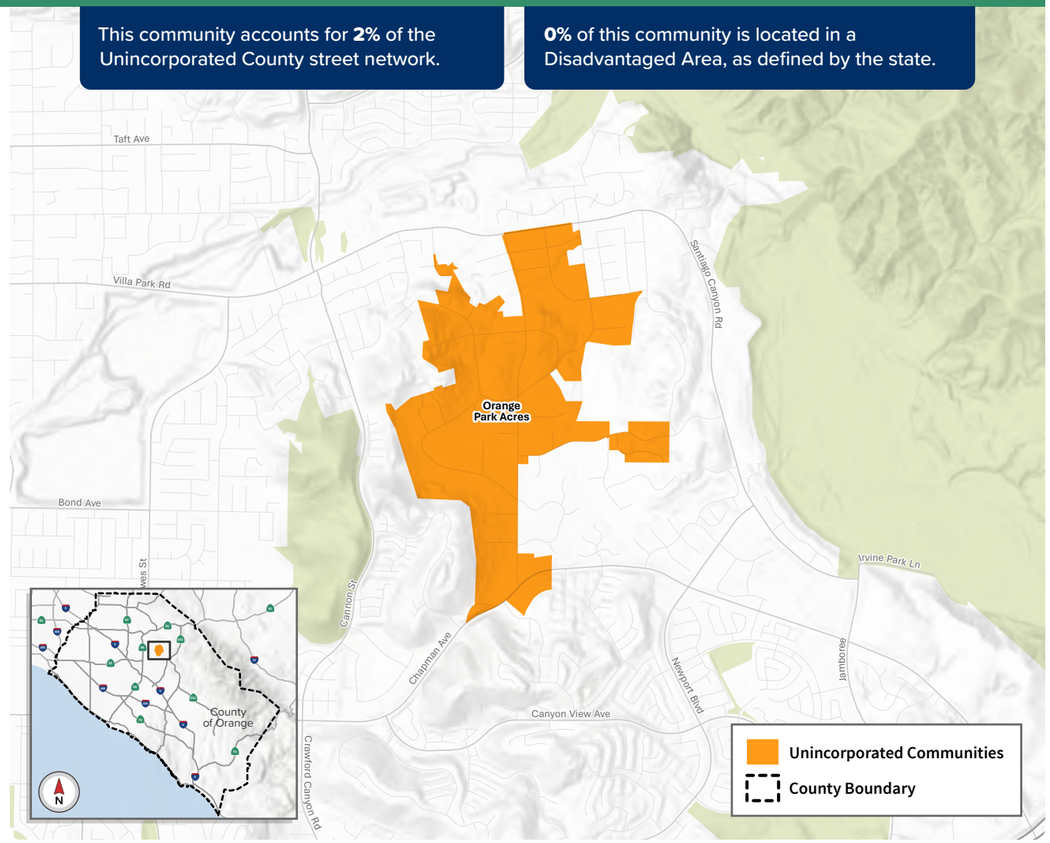
6 crashes occurred during daylight



1 crashes occurred at night/dusk-dawn

This community accounts for **2%** of the Unincorporated County street network.

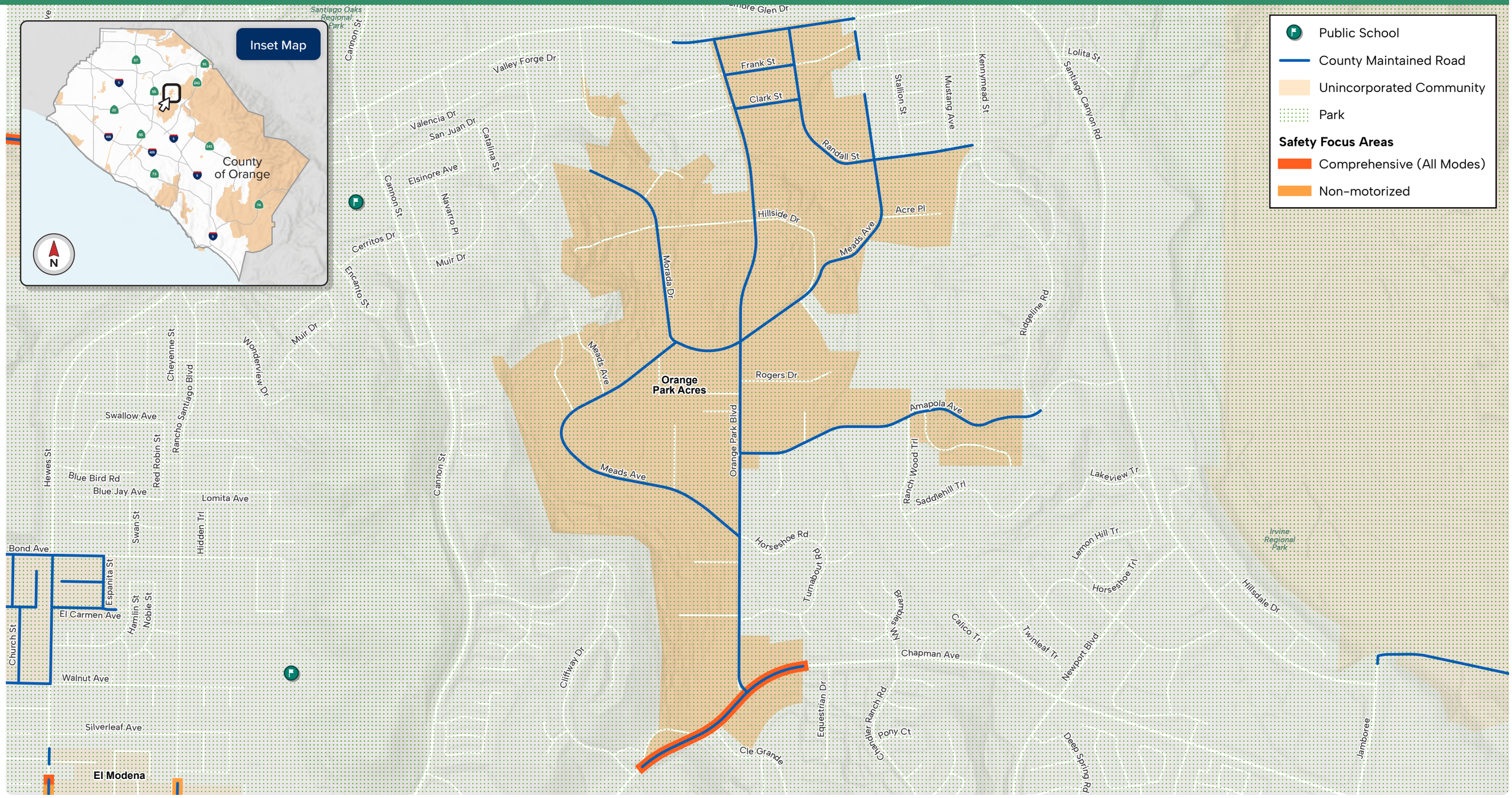
0% of this community is located in a Disadvantaged Area, as defined by the state.



Of all crashes within Unincorporated Orange County, this community accounts for...

0%	of Total Injury Crashes
1%	of KSI Crashes
0%	of Pedestrian Crashes
0%	of Bike Crashes
1%	of Motorcycle Crashes

5 Orange Park Acres



6 North Tustin

Key Takeaway: Within Unincorporated Orange County, 17% of crashes in North Tustin were primarily caused by a driver or bicyclist under the **influence of alcohol or drugs**—the highest share of any community.

Injury Crash Summary (2019 - 2023)

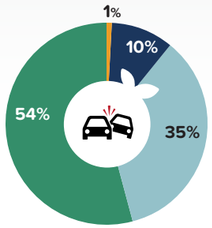
190 Total Injury Crashes

12 Pedestrian Crashes **(42% KSI)**

14 Bike Crashes **(14% KSI)**

8 Motorcycle Crashes **(38% KSI)**

Crash Severity



- **2** Fatal
- **19** Severe Injury
- **66** Other Visible Injury
- **103** Complaint of Pain

Impacted Populations

28 Crashes with Senior Victims (Age 65+)

29 Crashes with Youth Victims (Under age 18)

Top Violations

The most common primary causes of crashes in this community.

46 **24%** of all injury crashes caused by unsafe speed

7 **33%** of KSI crashes caused by driving or bicycling under the influence or alcohol

Top Crash Types

The most common injury-causing crash events in this community.

66 **35%** of all injury crashes were broadside

5 **24%** of KSI crashes were broadside

Behavior

40 **21%** of all injury crashes involved at-fault drivers making left turns

11 **6%** of all injury crashes were hit and runs

32 **17%** of all injury crashes were primarily caused by someone driving or bicycling under the influence of drugs or alcohol

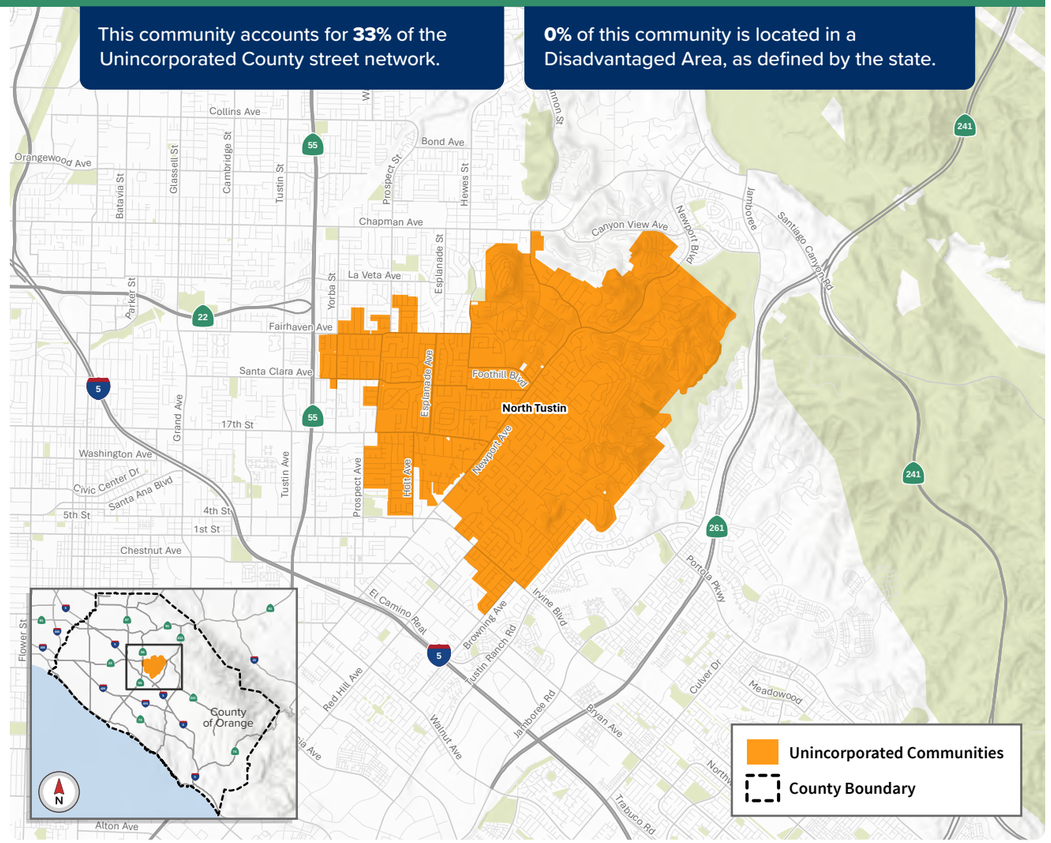
Crash Lighting Condition

131 crashes occurred during daylight

59 crashes occurred at night/dusk-dawn

This community accounts for **33%** of the Unincorporated County street network.

0% of this community is located in a Disadvantaged Area, as defined by the state.



Of all crashes within Unincorporated Orange County, this community accounts for...

13% of Total Injury Crashes

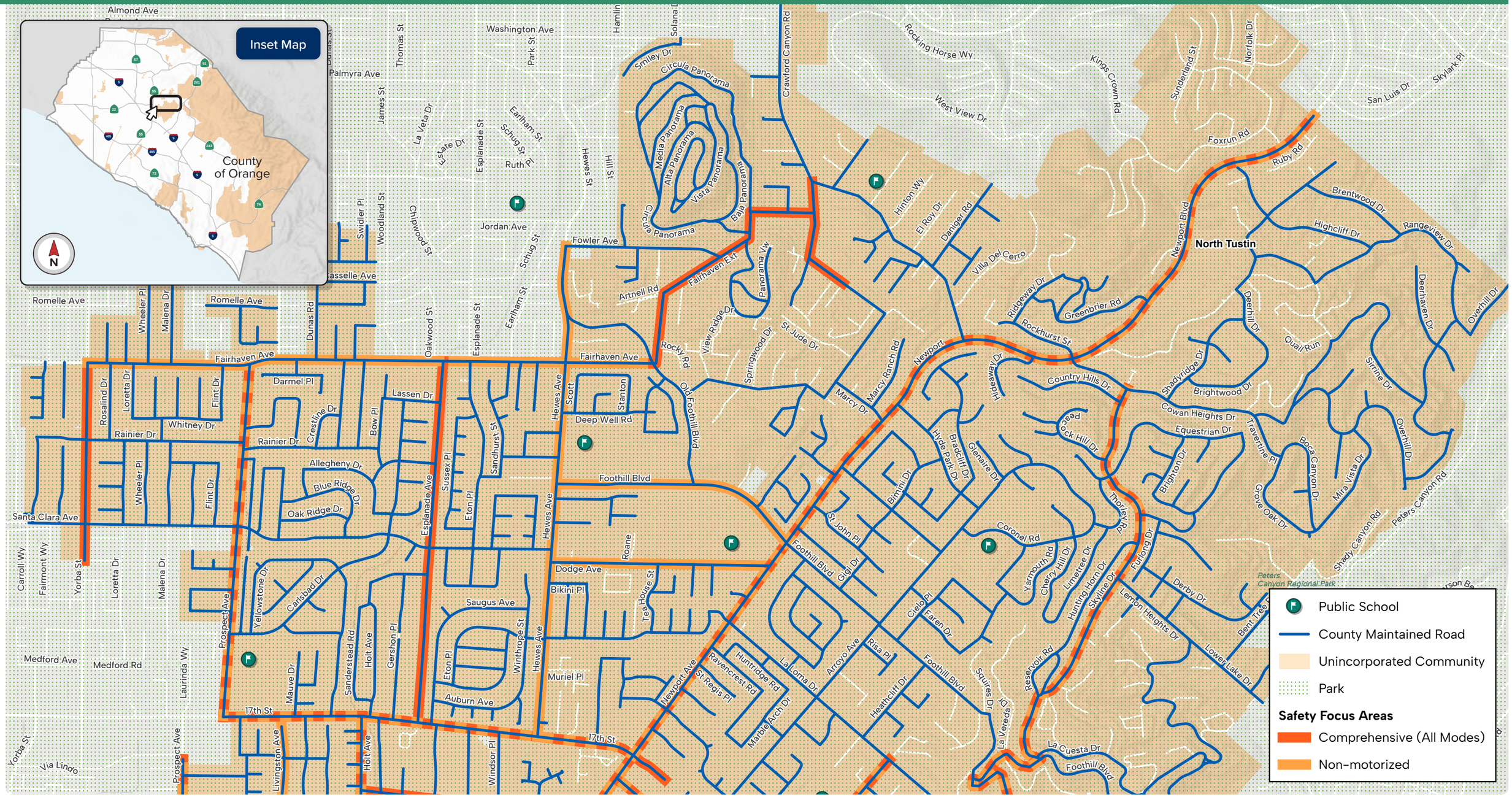
11% of KSI Crashes

13% of Pedestrian Crashes

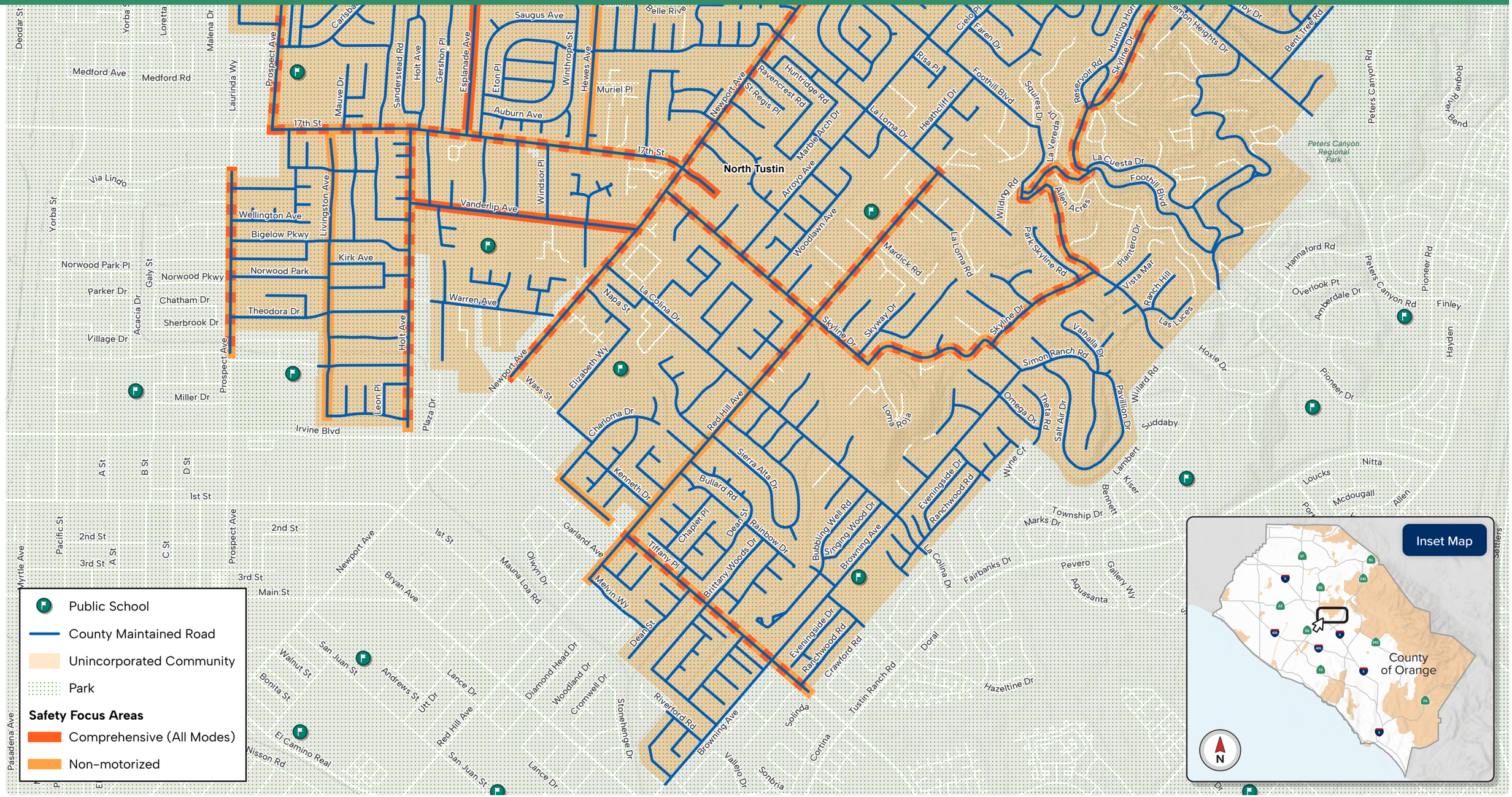
12% of Bike Crashes

5% of Motorcycle Crashes

6 North Tustin



6 North Tustin



7 Midway City and Surrounding Communities

Midway City and Beach/McFadden, Bolsa/Pacific, Fountain Valley, and McFadden/Monroe Islands

Key Takeaway: These communities account for just 4% of the Unincorporated County street network, but 25% of the **pedestrian crashes** in Unincorporated Orange County.

Injury Crash Summary (2019 - 2023)

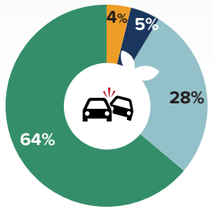
209 **Total Injury Crashes**

22 Pedestrian Crashes **(27% KSI)**

17 Bike Crashes **(12% KSI)**

13 Motorcycle Crashes **(21% KSI)**

Crash Severity



- **8** Fatal
- **10** Severe Injury
- **58** Other Visible Injury
- **133** Complaint of Pain

Impacted Populations

38 Crashes with Senior Victims (Age 65+)

23 Crashes with Youth Victims (Under age 18)

Top Violations

The most common primary causes of crashes in this community.

59 **28%** of all injury crashes caused by unsafe speed

6 **33%** of KSI crashes caused by pedestrian violation

Top Crash Types

The most common injury-causing crash events in this community.

69 **33%** of all injury crashes were rear end

6 **33%** of KSI crashes were vehicle/pedestrian

Behavior

27 **13%** of all injury crashes involved at-fault drivers making left turns

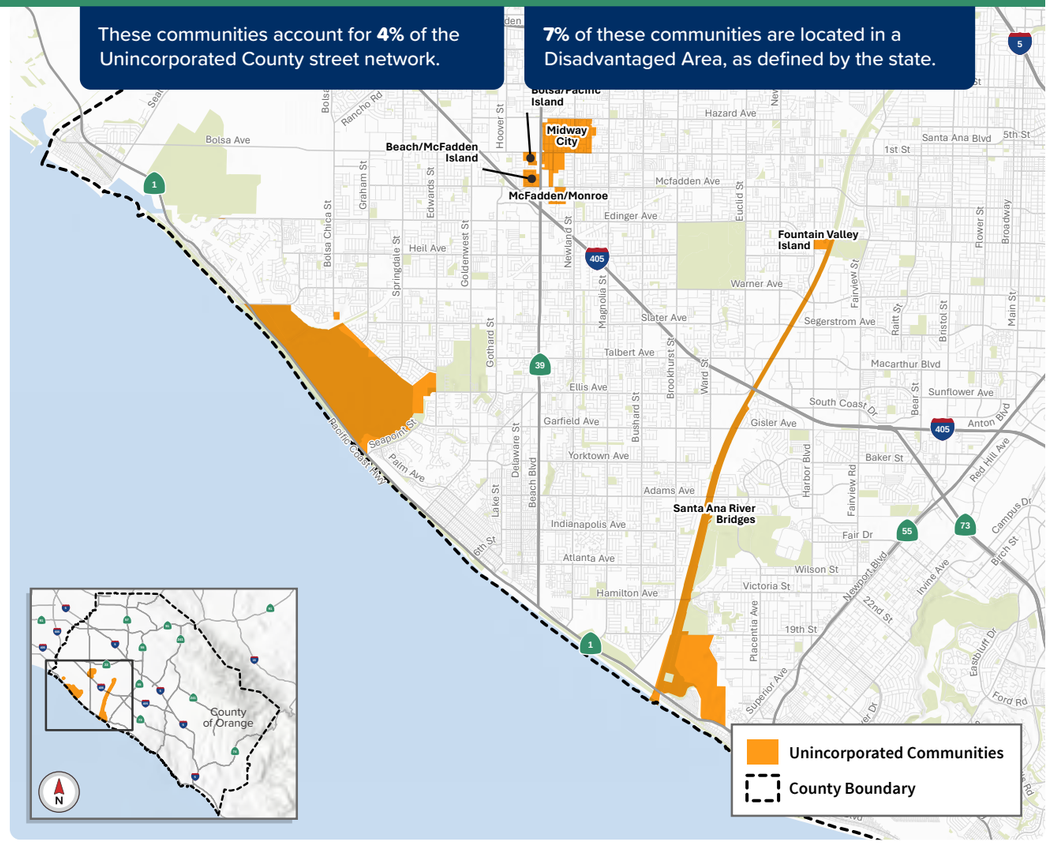
24 **11%** of all injury crashes were hit and runs

31 **15%** of all injury crashes were primarily caused by someone driving or bicycling under the influence of drugs or alcohol

Crash Lighting Condition

145 crashes occurred during daylight

64 crashes occurred at night/dusk-dawn



Of all crashes within Unincorporated Orange County, this community accounts for...

14% **of Total Injury Crashes**

9% of KSI Crashes

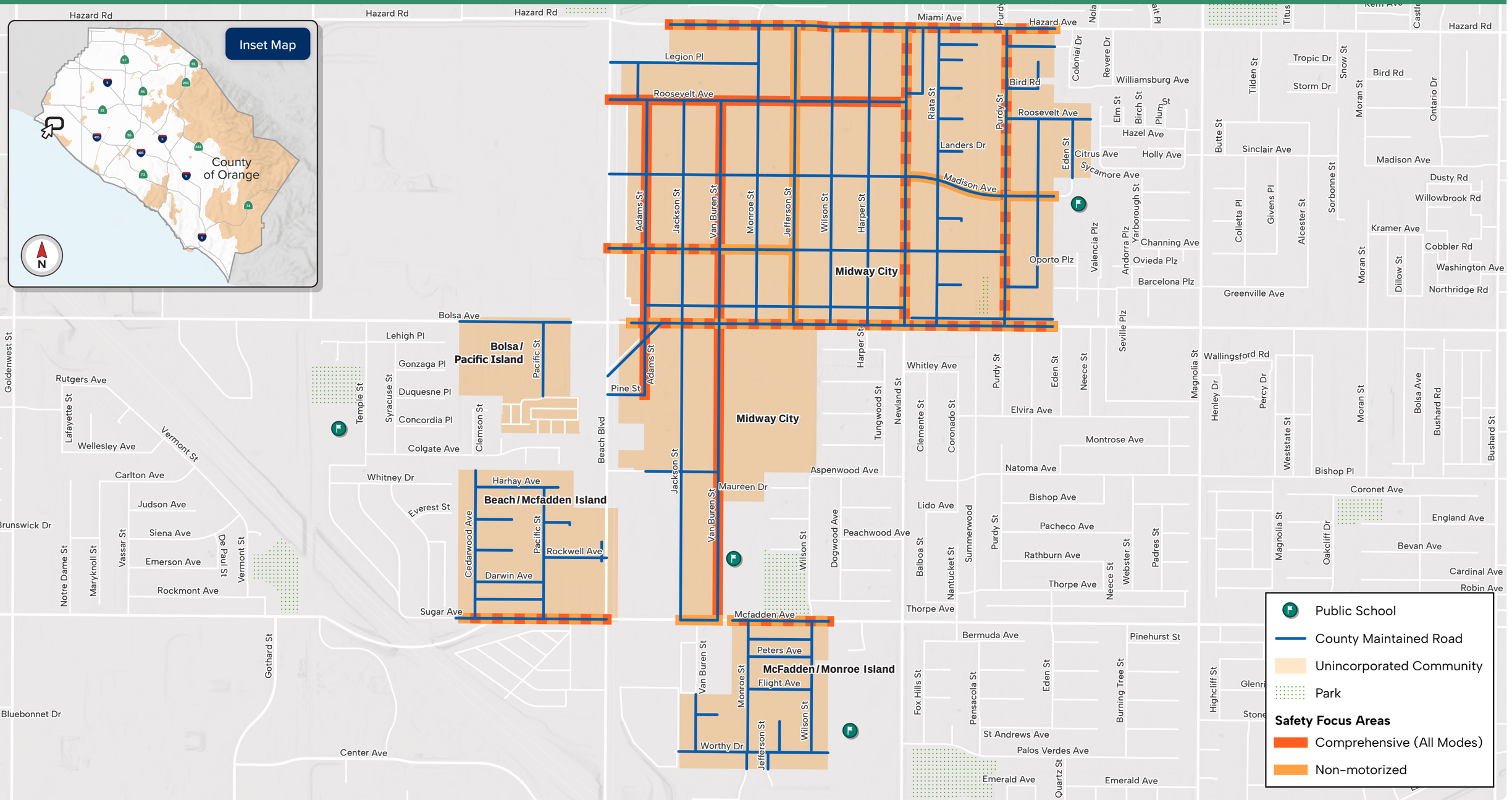
25% of Pedestrian Crashes

15% of Bike Crashes

8% of Motorcycle Crashes

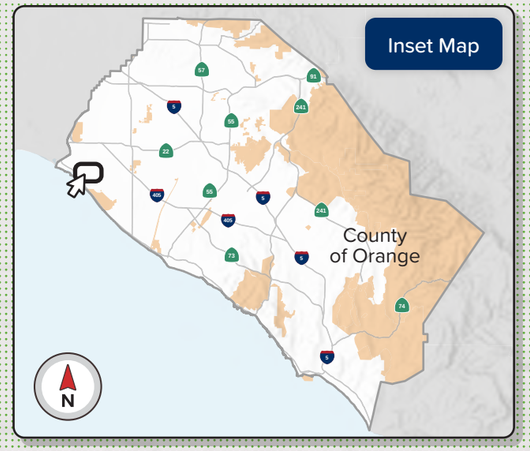
7 Midway City and Surrounding Communities

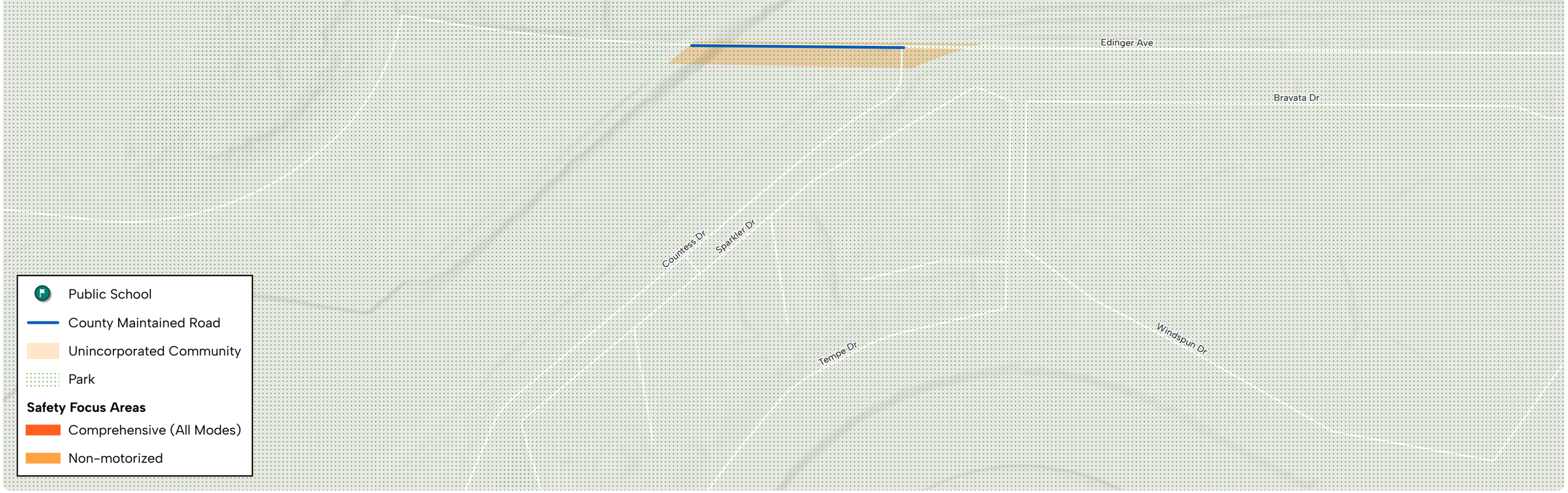
Midway City and Beach/McFadden, Bolsa/Pacific, and McFadden/Monroe Islands



7 Midway City and Surrounding Communities

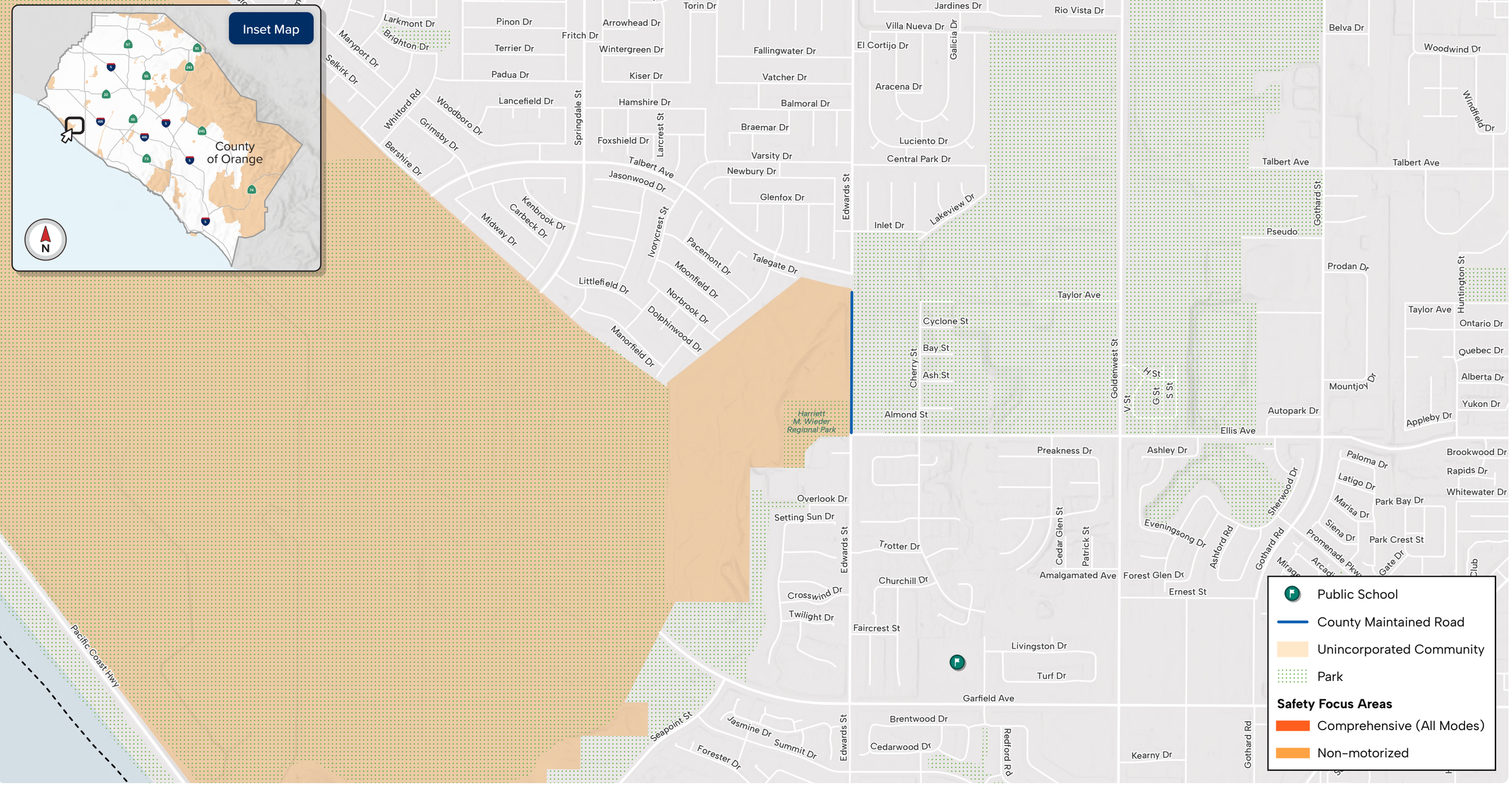
Edinger Avenue





7 Midway City and Surrounding Communities

Edwards Street

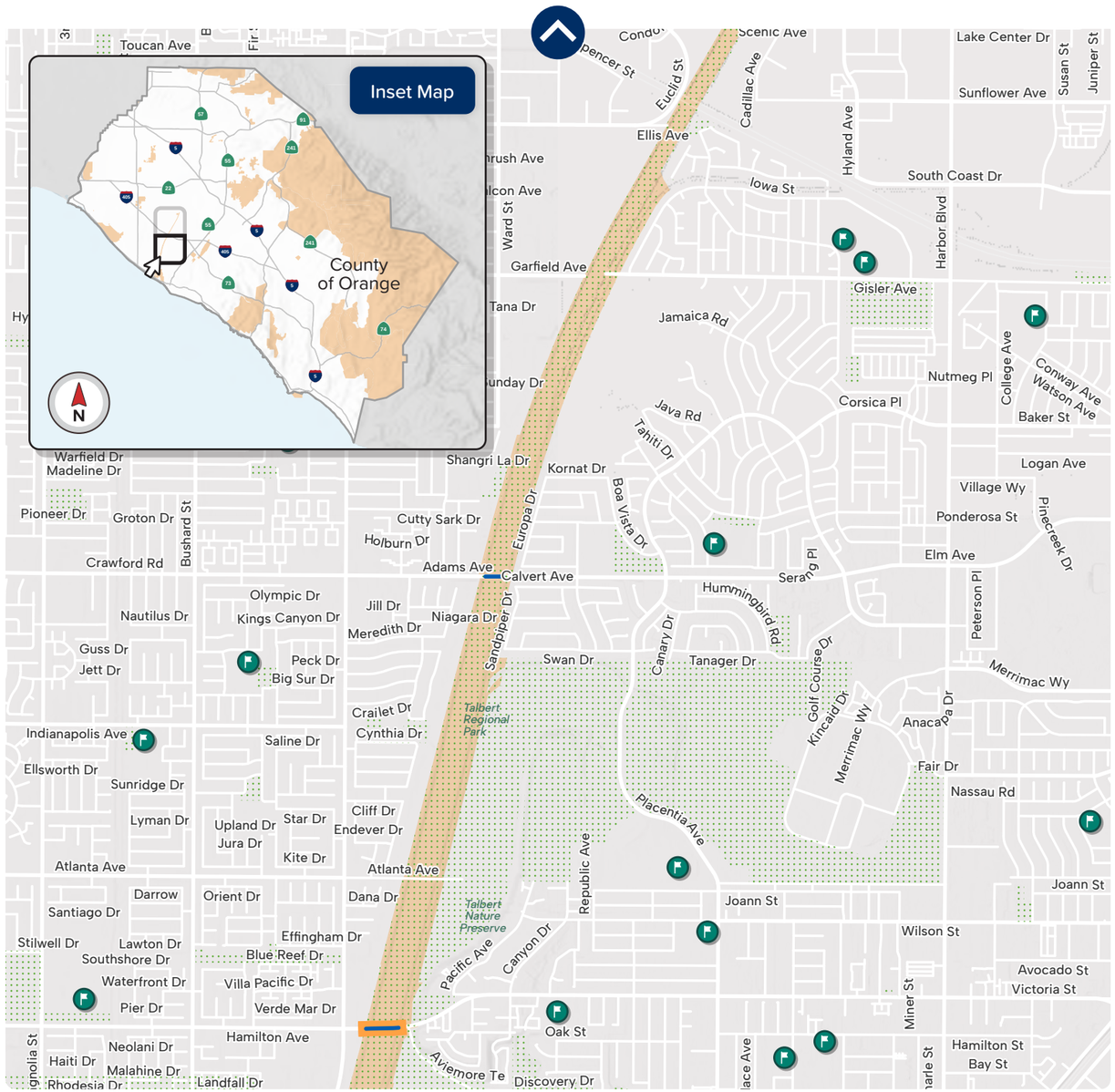


7 Midway City and Surrounding Communities

Fountain Valley Island and Santa Ana River Bridges

Continuation shown on right panel

Continuation shown on left panel



8 Santa Ana Country Club & Costa Mesa Island

Key Takeaway: In Santa Ana Country Club & Costa Mesa Island, four of the five **pedestrian crashes** resulted in either a fatality or a severe injury.

Injury Crash Summary (2019 - 2023)

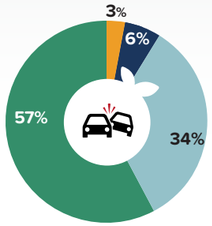
101 Total Injury Crashes

5 Pedestrian Crashes **(80% KSI)**

5 Bike Crashes **(0% KSI)**

8 Motorcycle Crashes **(13% KSI)**

Crash Severity



- **3** Fatal
- **6** Severe Injury
- **34** Other Visible Injury
- **58** Complaint of Pain

Impacted Populations

17 Crashes with Senior Victims (Age 65+)

9 Crashes with Youth Victims (Under age 18)

Top Violations

The most common primary causes of crashes in this community.

20 **20%** of all injury crashes caused by unsafe speed

3 **33%** of KSI crashes caused by unsafe speed

Top Crash Types

The most common injury-causing crash events in this community.

55 **54%** of all injury crashes were broadside

4 **44%** of KSI crashes were broadside

Behavior

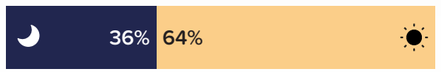
11 **11%** of all injury crashes involved at-fault drivers making left turns

10 **10%** of all injury crashes were hit and runs

12 **12%** of all injury crashes were primarily caused by someone driving or bicycling under the influence of drugs or alcohol

Crash Lighting Condition

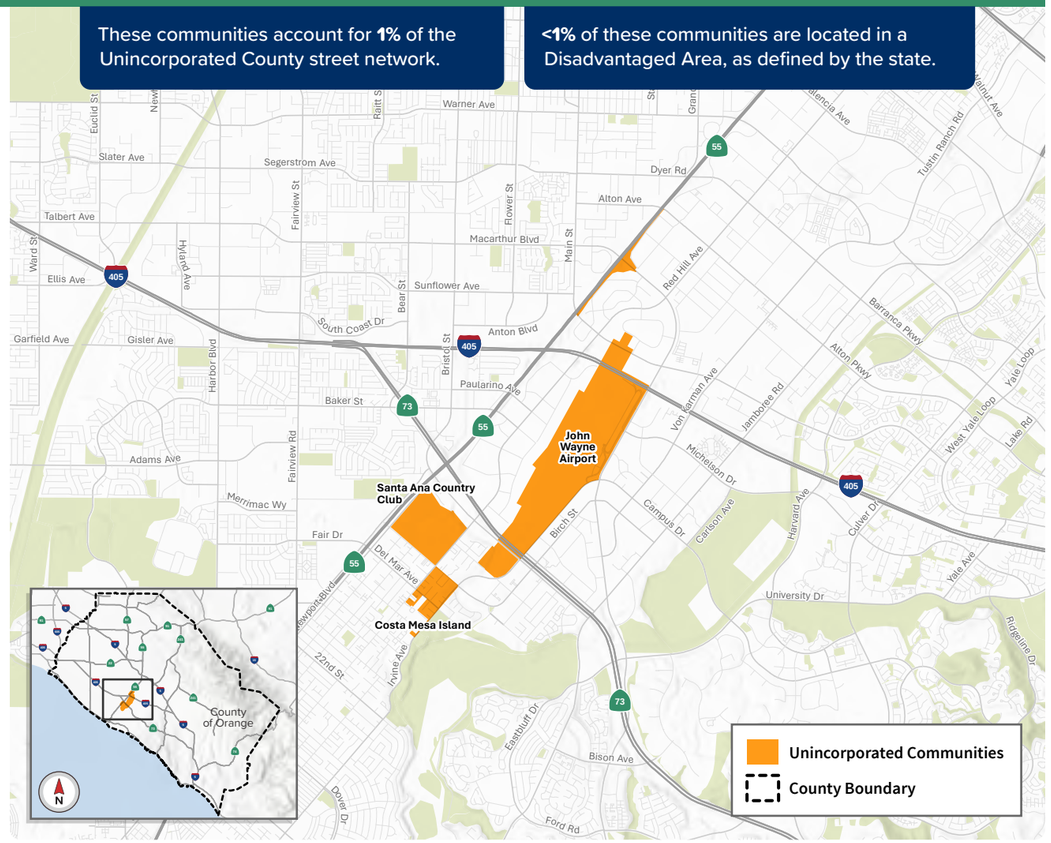
65 crashes occurred during daylight



36 crashes occurred at night/dusk-dawn

These communities account for **1%** of the Unincorporated County street network.

<1% of these communities are located in a Disadvantaged Area, as defined by the state.



Of all crashes within Unincorporated Orange County, this community accounts for...

7% of Total Injury Crashes

4% of KSI Crashes

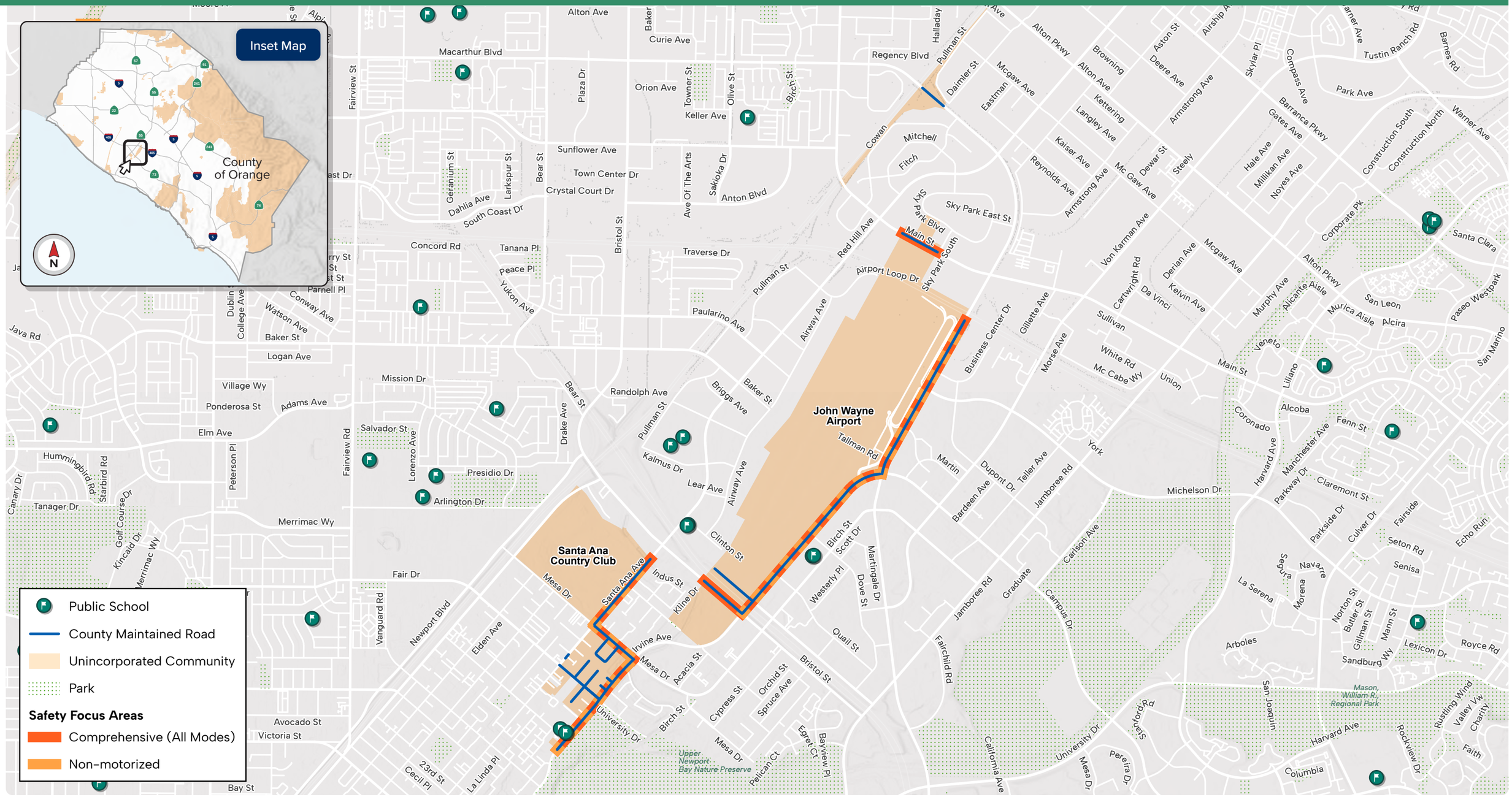
6% of Pedestrian Crashes

4% of Bike Crashes

5% of Motorcycle Crashes

Note: Crashes summarized in this Community Group include incidents occurring on SR-39.

8 Santa Ana Country Club & Costa Mesa Island



9 Canyon Communities

Modjeska Canyon, Santiago Canyon Road, Silverado Canyon, and Trabuco Canyon

Key Takeaway: Within Unincorporated Orange County, over half of all crashes in the Canyon Communities involve **hitting an object**, the highest rate in the area. Additionally, the Canyon Communities account for more than half of all **motorcycle crashes**.

Injury Crash Summary (2019 - 2023)

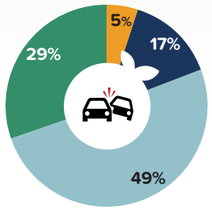
278 Total Injury Crashes

2 Pedestrian Crashes **(0% KSI)**

8 Bike Crashes **(50% KSI)**

79 Motorcycle Crashes **(37% KSI)**

Crash Severity



- **14** Fatal
- **48** Severe Injury
- **135** Other Visible Injury
- **81** Complaint of Pain

Impacted Populations

22 Crashes with Senior Victims (Age 65+)

23 Crashes with Youth Victims (Under age 18)

Top Violations

The most common primary causes of crashes in this community.

108 **39%** of all injury crashes caused by improper turning

25 **40%** of KSI crashes caused by unsafe speed

Top Crash Types

The most common injury-causing crash events in this community.

141 **51%** of all injury crashes were hit object

25 **40%** of KSI crashes were hit object

Behavior

7 **3%** of all injury crashes involved at-fault drivers making left turns

9 **3%** of all injury crashes were hit and runs

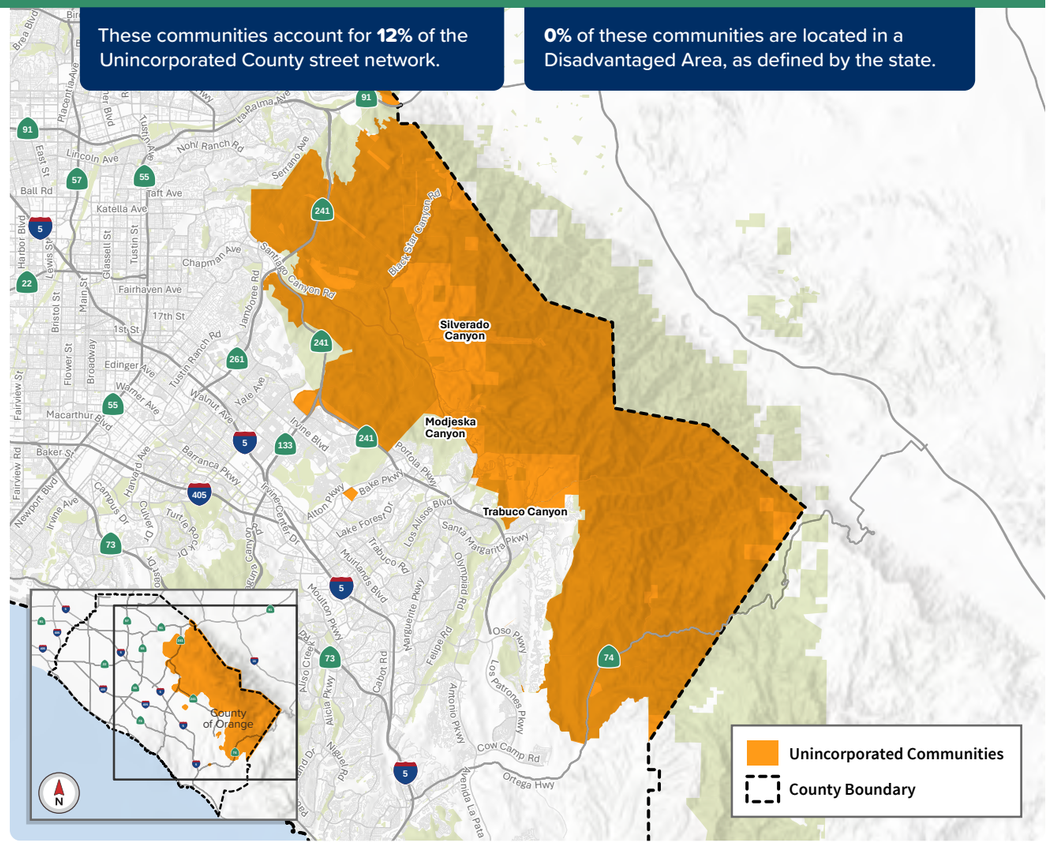
34 **12%** of all injury crashes were primarily caused by someone driving or bicycling under the influence of drugs or alcohol

Crash Lighting Condition

166 crashes occurred during daylight

40% 60%

111 crashes occurred at night/dusk-dawn



Of all crashes within Unincorporated Orange County, this community accounts for...

18% of Total Injury Crashes

32% of KSI Crashes

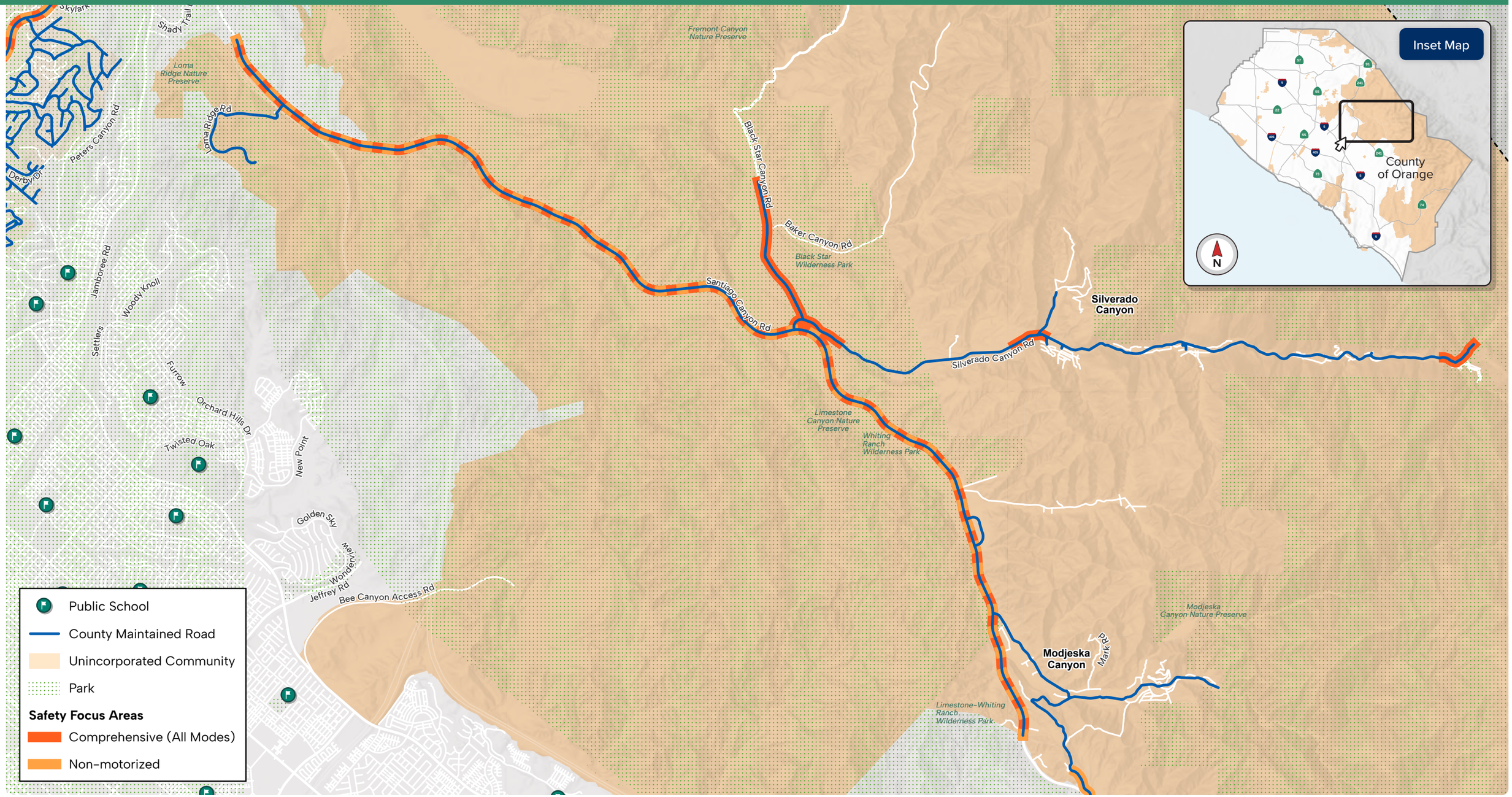
2% of Pedestrian Crashes

7% of Bike Crashes

51% of Motorcycle Crashes

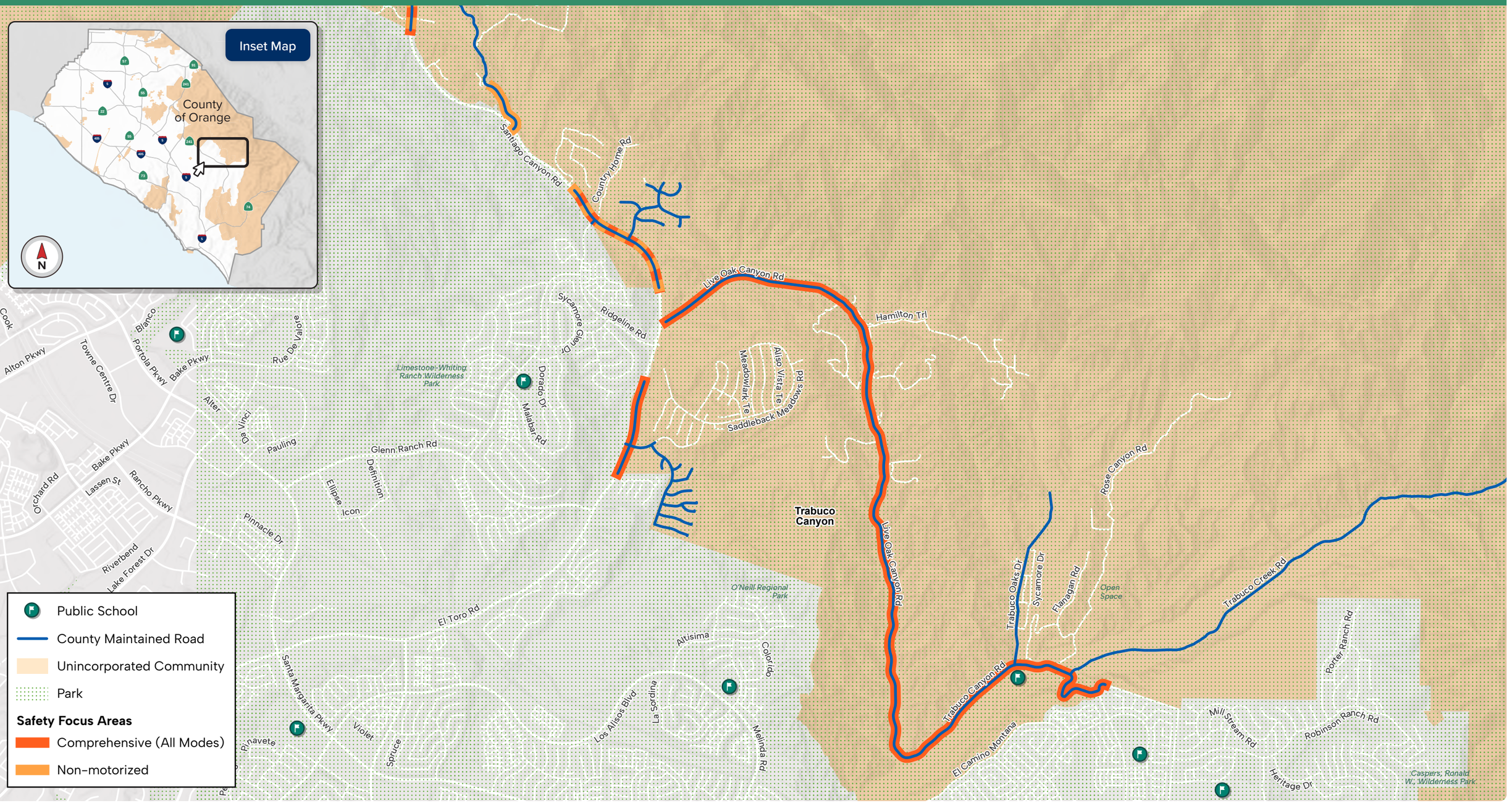
9 Canyon Communities

Modjeska Canyon, Santiago Canyon Road, Silverado Canyon, and Trabuco Canyon



9 Canyon Communities

Modjeska Canyon, Santiago Canyon Road, Silverado Canyon, and Trabuco Canyon



10 South County Communities

Dana Point Harbor, Ladera Ranch, Las Flores, Rancho Mission Viejo, Wagon Wheel

Key Takeaway: South County Communities accounted for 43% of all **bike-involved crashes** in Unincorporated Orange County, the highest share of any community.

Injury Crash Summary (2019 - 2023)

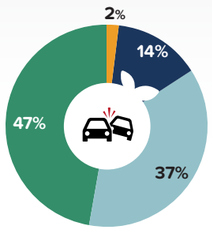
354 Total Injury Crashes

12 Pedestrian Crashes **(42% KSI)**

50 Bike Crashes **(32% KSI)**

32 Motorcycle Crashes **(56% KSI)**

Crash Severity



- **8** Fatal
- **48** Severe Injury
- **132** Other Visible Injury
- **166** Complaint of Pain

Impacted Populations

46 Crashes with Senior Victims (Age 65+)

70 Crashes with Youth Victims (Under age 18)

Top Violations

The most common primary causes of crashes in this community.

119 **34%** of all injury crashes caused by unsafe speed

18 **32%** of KSI crashes caused by unsafe speed

Top Crash Types

The most common injury-causing crash events in this community.

110 **31%** of all injury crashes were rear end

17 **30%** of KSI crashes were hit object

Behavior

27 **8%** of all injury crashes involved at-fault drivers making left turns

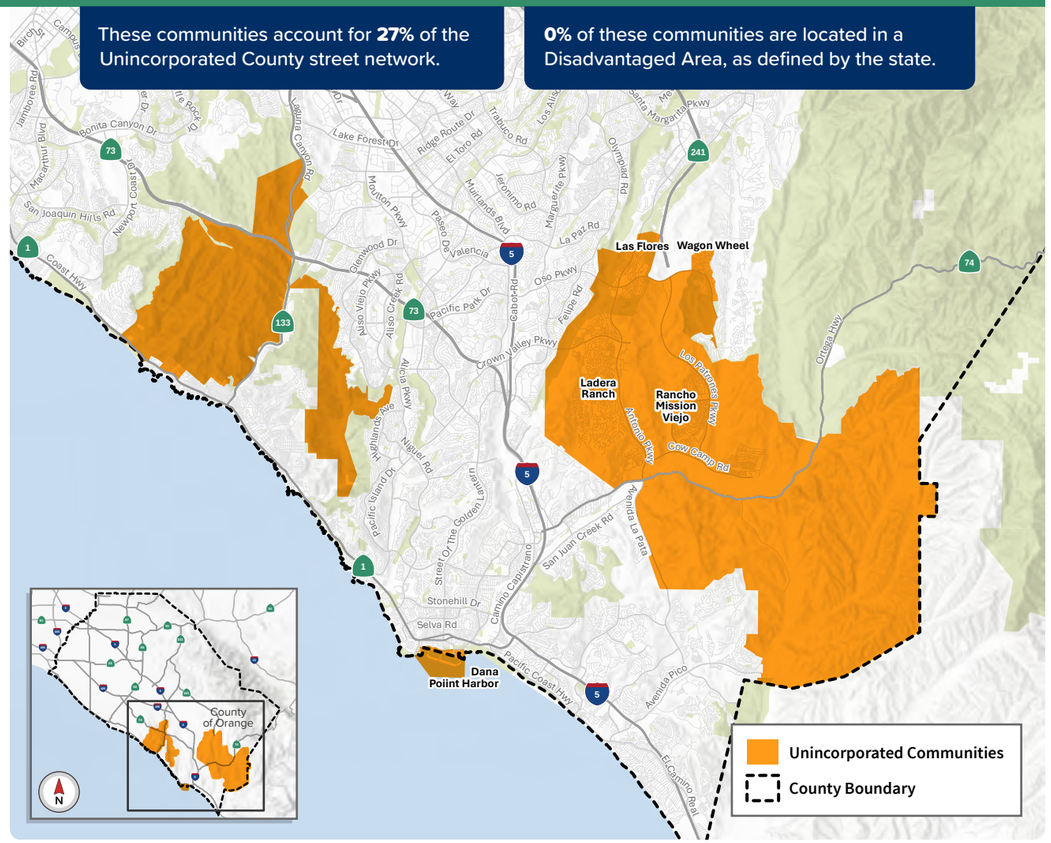
18 **5%** of all injury crashes were hit and runs

33 **9%** of all injury crashes were primarily caused by someone driving or bicycling under the influence of drugs or alcohol

Crash Lighting Condition

242 crashes occurred during daylight

112 at night/dusk-dawn



Of all crashes within Unincorporated Orange County, this community accounts for...

24% of Total Injury Crashes

29% of KSI Crashes

14% of Pedestrian Crashes

43% of Bike Crashes

21% of Motorcycle Crashes

Note: Crashes summarized in this Community Group include incidents occurring on SR-74.