COLLIER
Metropolitan Planning Organization

SAFETY ACTION PLAN

APPENDIX B

EXISTING CONDITIONS & SAFETY ANALYSIS MEMORANDUM

Collier County Safe Streets and Roads for All (SS4A) Comprehensive Safety Action Plan (SAP)

Existing Conditions & Safety Analysis Memorandum

July 7, 2025 — Contract # 18-7432 MP
Collier Metropolitan Planning Organization (MPO)

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Contents

EXECUTIVE SUMMARY

Collier MPO has included safety goals in many preceding plans which reflect considerable thought, effort, and engagement. The previous plans are fundamental in shaping the Safety Action Plan, providing a foundation and areas for alignment.

Collier County reported 929 killed or serious injury (KSI) crashes on their roadway network over a five-year period, averaging about 186 per year (152 serious injury crashes and 34 fatal crashes annually). These crashes resulted in 184 fatalities, averaging 36 traffic deaths per year, as summarized in Table 2. The number of KSI crashes dipped slightly in 2020, in contrast to nationwide trends, but have since surpassed 2019 levels, highlighting a troubling increase in traffic incidents and the urgent need for improved safety measures.

Crash data reveals several patterns that provide a better understanding of traffic safety issues in Collier County:

- **Seasonality:** More crashes occur in winter and spring, accounting for nearly 60% of all KSI crashes. Concurrently, over half of pedestrian and bicycle KSI crashes, 66%, occur in winter and spring. This contrasts national trends but aligns with the region's annual population fluctuations during these periods.
- **Age of Victim**: In Collier County, individuals aged 20 to 30 are involved in the highest percentage of KSI (Killed or Seriously Injured) crashes, accounting for 24% despite representing only 9% of the population. Additionally, children and teens (0-19) are disproportionately affected in pedestrian and bicyclist KSI crashes, underscoring their vulnerability.
- **Contributing Factors:** Based on the reported crash data, over half (65%) of all fatal and severe injury crashes are attributed to five main causes: failure to yield, roadway departure, reckless driving, disregarding traffic signals, and speeding.
- **Location:** A large portion of crashes (25%) occur in parking lots. Parking lot locations accounted for 10% of all fatal and serious injury crashes for pedestrians and cyclists, which is disproportionately higher than for all road users (6%).

A systemic analysis reveals the relative severity of different types of crashes and types of crash locations:

- **Crashes by Mode:** Motor vehicle crashes account for the majority of all crashes and cause the most serious injuries and fatalities. However, non-motor vehicle crashes tend to be more severe when they occur.

  Pedestrians and cyclists account for only 4% of all crashes but represent 23% of all KSI (Killed or Seriously Injured) crashes. Motorcyclists are involved in just 1% of all crashes but makeup 14% of KSI crashes.

  For pedestrian crashes, 1 in every 10 results in a fatality or serious injury. For bicyclists, this figure is 1 in every 9 crashes, and for motorcyclists, it is 1 in every 4 crashes. In contrast, motor vehicle crashes result in a fatality or serious injury every 95 crashes.
- **Motor Vehicle Crash Types:** While rear end, sideswipe, and other / non-collision crashes are the most common motor vehicle crash types, the most severe crash types are roll-over, head-on, left-turn, and ran-off roadway / fixed object crashes (where a motor vehicle strikes a parked car, tree, or other non-moving object).
- **Intersection Crashes**: Risk was assessed for both urban and rural intersections. In urban areas, the relative risk for crashes and KSI (killed or serious injury) crashes is higher at high-volume intersections

with more lanes. However, the highest risk for pedestrian KSI crashes is at signalized intersections with 1 or 2 lanes and low average daily traffic (under 25,000 vehicles). All crash types are more frequent at intersections with 6 or more lanes, with the greatest risk at high-volume, non-signalized intersections with 6 or more lanes.

At rural intersections, non-signalized rural intersections have a greater frequency of KSI crashes yet pedestrian and bicyclist crashes are uncommon at rural intersections. The highest risk for vehicle reported crashes were identified to be speed-related on 6+ lane signalized intersections and related to speed.

- **Segment Crashes**: Risk was assessed for both urban and rural roadway segments. On urban roadway segments, the relative risk for roadways with 1 or 2 lanes is consistently low, regardless of average daily vehicle traffic. In general, risk increases with the number of lanes and daily traffic: the risk of KSI crashes is greatest on 6+ lane segments with moderate Average Annual Daily Traffic (AADT) and of the crash types examined, all occur more frequently than average on 3 to 6+ lane roadway segments with moderate AADT.

  On rural roadway segments, the risk increases with the number of lanes, even though these roads typically have low average annual daily traffic (AADT)

- **Equity Assessment**: Based on an equity score comprised of demographic and socio-economic factors, areas with a high equity need are overrepresented in the County's crashes and KSI crashes. Although containing only 3% of the county's roadway miles, 9% of KSI crashes occurred in the most disadvantaged communities.

A high injury network (HIN), a set of roads and intersections with the highest rates of severe and fatal crashes determined by data analysis, was developed to support Collier MPO in prioritizing safety projects throughout the county. The HIN includes both intersection and segment locations and was developed based on three equally weighted criteria: Severe Crash Risk Score, Facility Risk Score, and Relative Risk Score.

PREVIOUS PLANS

This conditions assessment started with a review of relevant past studies and plans that set safety goals impacting the region and future projects. The existing MPO plans and their goals demonstrate significant thought, effort, and engagement, forming the foundation for the Safety Action Plan and providing areas for alignment. Relevant excerpts from these resources are documented below. Several major themes emerged across the plans reviewed:

- Increased safety of the transportation system for motorized and non-motorized users.
- Safe, connected, efficient, and convenient mobility options including transit.
- Accessibility for people walking and biking through investments in the built environment.
- Equitable community input and inclusive transportation network outcomes.

Overall, Collier MPO's existing plans reflect an intention for a Complete Streets approach where the design, management, operations, and maintenance of the County's streets and transportation systems reflect the needs of all users. These plans are guided by and optimized for broader social, economic, and environmental outcomes, rather than solely focusing on motor vehicle traffic.

Plan Findings

Below are excerpts from the reviewed plans. Plans that did not contain goals, priorities, or recommendations relevant to a Comprehensive Safety Action Plan have been omitted.

Local Roads Safety Plan (LRSP), May 2021

"The purpose is to prioritize opportunities **to improve roadway safety** on locally owned and maintained roadways **in support of Florida Department of Transportation's Vision Zero goal of achieving zero fatalities and serious injuries Statewide.**"

2045 Long Range Transportation Plan (LRTP)

- **Goal #6: Increase the Safety of the Transportation System for Users**
    - **Reduce the number of fatalities, injuries, and crashes**.
    - Ensure **adequate bicycle and pedestrian facilities** are incorporated into new highway and transit projects.
    - Implement **safety-related improvements on high crash corridors.**
- **Goal #7: Promote Multimodal Solutions**
    - Improve frequency and reliability of public transit service routes and **improve access** to park-and-ride lots.
    - **Improve pedestrian and bicycle facilities**.
    - **Implement Complete Streets policies.**

Transportation Improvement Program (TIP)

The MPO and its partners prioritize projects listed in the TIP to enhance regional mobility and improve the safety, condition, and efficiency of the transportation system. The TIP includes projects for all transportation modes, including roadways, bicycle and pedestrian paths, transit, and aviation. Its development involves input from all transportation system users, including those traditionally underserved who may face challenges accessing employment and other services. The MPO's LRTP and TIP are developed with consideration of the ten planning factors from MAP-21 and the FAST Act, a selection of which are listed below.

- Increase the safety of the transportation system for motorized and non-motorized users.
- Increase the security of the transportation system for the motorized and non-motorized users.
- Increase the accessibility and mobility of people and for freight.
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.
- Enhance travel and tourism.

FY22-24 Unified Planning Work Program (UPWP)

The Florida Transportation Plan and the State's Strategic Highway Safety Plan prioritize safety, aiming for zero traffic fatalities and serious injuries. MPOs must demonstrate how their Long-Range Transportation Plan (LRTP) and priority projects in the Transportation Improvement Program (TIP) contribute to these safety targets. The UPWP should consider enhancements to data analyses and community involvement to better inform the identification and prioritization of safety projects.

Congestion Management Process (CMP), April 2022

The following Objectives were reviewed by the CMP and approved by the MPO Board to provide more specific guidance and direction in evaluating the CMP's performance measures and strategies.

- Objective 1: Improve the safety of transportation facilities.
- Objective 3: Develop, maintain, expand, and close gaps in pedestrian, bicycle, and shared-use path facility networks for efficient and safe movement of people. Connect these pedestrian and bicycle facilities to existing and future transit stops.
- Objective 4: Reduce vehicle miles traveled (VMT) by encouraging alternative modes of transportation, supporting sustainable land use development, and creating an integrated multimodal transportation system.
- Objective 6: Promote transportation investments that support the LRTP's priorities, goals, and objectives.
    - LRTP Goal #6: Increase the Safety of the Transportation System for Users; CMP-Related Objectives:
    - LRTP Goal #7: Promote Multi modal Solutions; CMP-Related Objectives:

Bicycle and Pedestrian Master Plan, March 2019

Vision: "To provide a safe and comprehensive bicycle and pedestrian network that promotes and encourages community use and enjoyment." This plan aims to provide a safe and comprehensive bicycle and pedestrian network that promotes and encourages community use and enjoyment. It builds on prior efforts to develop a first-class network throughout Collier County. It is not intended to duplicate or conflict with existing local plans and ongoing projects but rather to unify planning efforts and influence facility improvement priorities at the county level.

Strategies and objectives of the plan includes:

- **Safety: Increase safety for people who walk and bicycle in Collier County.**
    - Objectives:
        - Reduce the number and **severity of bicycle crashes.**
        - Reduce the number and **severity of pedestrian crashes**.
    - Strategies:
        - **Identify high-crash locations** for RSAs. Projects that implement recommendations identified in RSAs will be a high priority for funding.
        - Collaborate with law enforcement to develop and deploy **enforcement/education campaigns**.
        - Work with FDOT and law enforcement agencies to seek funding for **High Visibility Enforcement (HVE)** for pedestrian and bicycle safety.
        - Enhance the partnership with the Community Traffic Safety Team
        - **Adopt a Complete Streets Policy and work with local governments and the County to develop and adopt their own Complete Streets policies.**
        - Work with FDOT, MPO member entities, and other transportation agencies to reduce the number of crashes, particularly those with severe or fatal injuries
- **Safety Performance Targets of Vision Zero Florida and the Bicycle and Pedestrian Master Plan:**
    - Number of fatalities: 0
    - Rate of fatalities per 100 million vehicle miles traveled (VMT): 0
    - Number of serious injuries: 0
    - Rate of serious injuries per 100 million VMT: 0
    - Number of non-motorized fatalities and serious injuries: 0

One of the primary goals of the Bicycle and Pedestrian Master Plan is to reduce the number of bicycle and pedestrian serious injuries and fatalities by funding projects that will support this goal.

CRASH TRENDS

Unless otherwise noted, all crash analyses were done using crash data from the Florida Department of Highway Safety and Motor Vehicles (FLHSMV), queried via Signal Four Analytics for the years 2019-2023. All crashes marked as Interstate were removed for analysis, so crashes along I-75 will not be included. Crash data only includes reported crashes that meet the state's definition of a crash. Throughout the analysis, the term KSI crash describes crashes resulting in fatalities or serious injuries.

Overall Crash Numbers – Including Interstate Crashes

From 2019 through 2023, Collier County experienced over 60,000 traffic crashes and over 1,000 fatal or serious injury crashes (Table 1). 2023 peaked with 13,399 total crashes and 253 fatal or serious injury crashes. Although there was a decrease in fatal and serious injury crashes (KSI) between 2019 and 2020, the numbers have been steadily increasing since then. These figures include Interstate crashes, which are excluded from the subsequent sections of this report. Interstates have been left out of the remainder of the crash analysis due to differences in jurisdiction, traffic volumes, and the scope of countermeasures and strategies.

Year	Total Crashes	KSI Crashes
2019	11,933	238
2020	9,849	151
2021	12,100	198
2022	12,947	214
2023	13,399	253
Total	**60,228**	**1,054**

Table 1. Total crashes and total fatal and serious injury crashes in Collier County from 2019-2023, including interstate crashes.

Overall Crash Numbers – Non-Interstate Crashes

Excluding Interstate crashes, **Collier County saw just over 57,000 crashes between 2019 and 2023** (Table 2). Of those, **929 were serious or fatal injury crashes**. This equates to an average of 11,401 crashes, 152 serious injury crashes, and 34 fatal crashes per year. Once again, both crashes and KSI crashes decreased below 2019 levels, but have been steadily increasing since.

Year	Total Crashes	KSI Crashes
2019	11,410	216
2020	9,395	137
2021	11,494	172
2022	12,236	186
2023	12,470	218
Total	**57,005**	**929**

Table 2. Total crashes and total fatal and serious injury crashes in Collier County from 2019-2023, excluding interstate crashes.

Examining serious injury and fatal crashes more closely (Table 3), both fatal and serious injury crashes follow similar trends with a decrease in 2020 from the 2019 level and increases since. Serious injury crashes peaked at 184 in 2023, and fatal crashes peaked at 35 in 2022.

Year	Serious Injury Crashes	Fatal Crashes
2019	177	39
2020	108	29
2021	139	33
2022	151	35
2023	184	34
Total	**759**	**170**

Table 3. Total fatal and serious injury crashes in Collier County from 2019-2023.

Table 4 and Table 5 summarize non-interstate crashes for three major cities in Collier County, highlighting the total number of crashes and those resulting in fatal or serious injuries. Between 2019 and 2023, the City of Naples accounted for 4,199 crashes, representing 7% of the county's total crashes. However, these crashes were more severe, making up 11% of the county's KSI crashes.

Meanwhile, the City of Marco Island experienced 943 crashes, constituting 2% of the total crashes. Of these, 24 were KSI crashes. The City of Everglades reported 43 crashes, representing less than 1% of the county's total.

City	Population	Total Crashes	KSI Crashes
City of Naples	19,315	4,199	104
City of Marco Island	15,942	943	24
City of Everglades	143	43	3
Immokalee	27,753	3,220	82

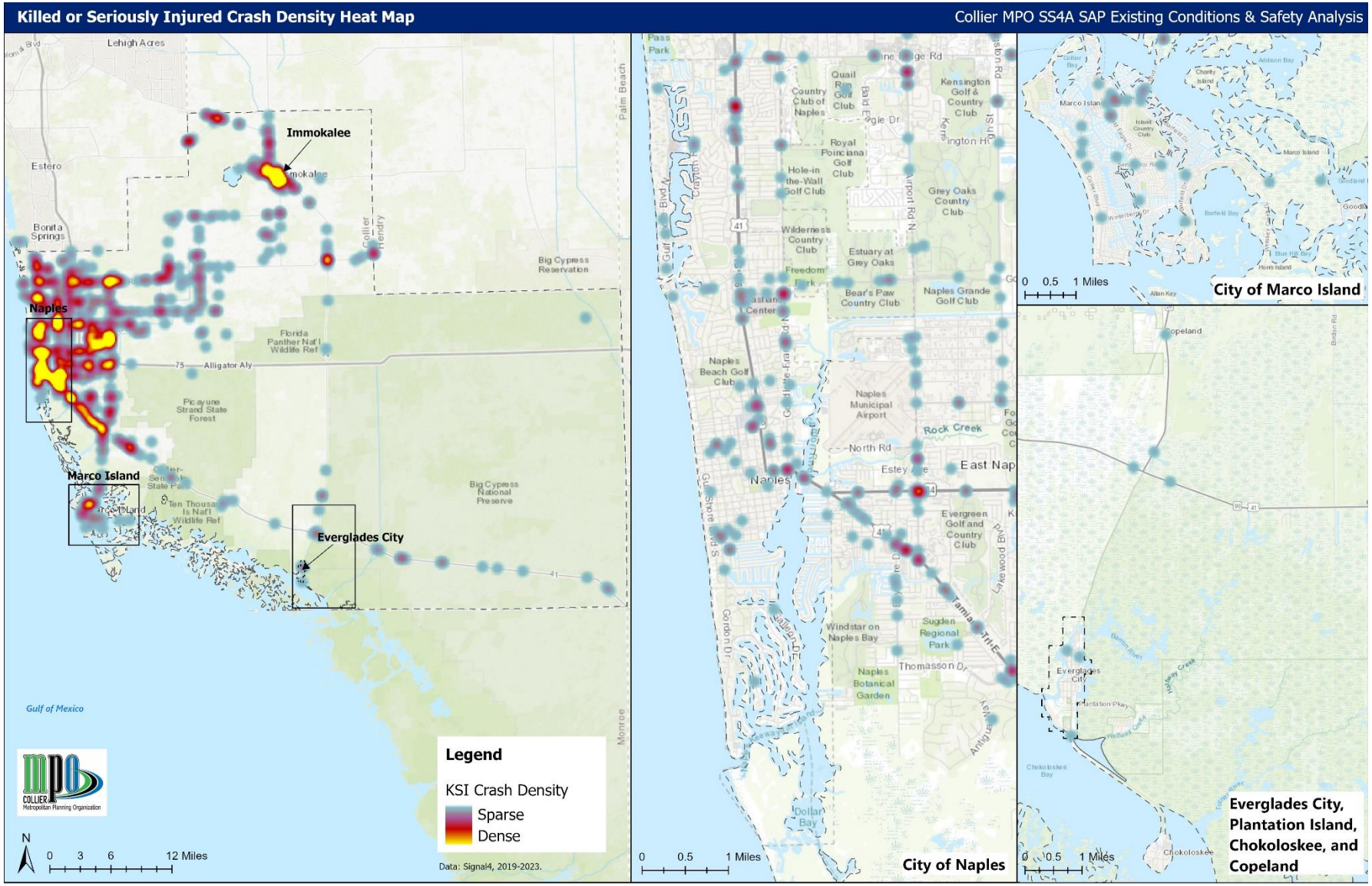
Table 4. Total crashes and total fatal and serious injury crashes within Major Cities from 2019-2023, excluding interstate crashes.

City	Serious Injury Crashes	Fatal Crashes
City of Naples	100	4
City of Marco Island	21	3
City of Everglades	3	0
Immokalee	62	20

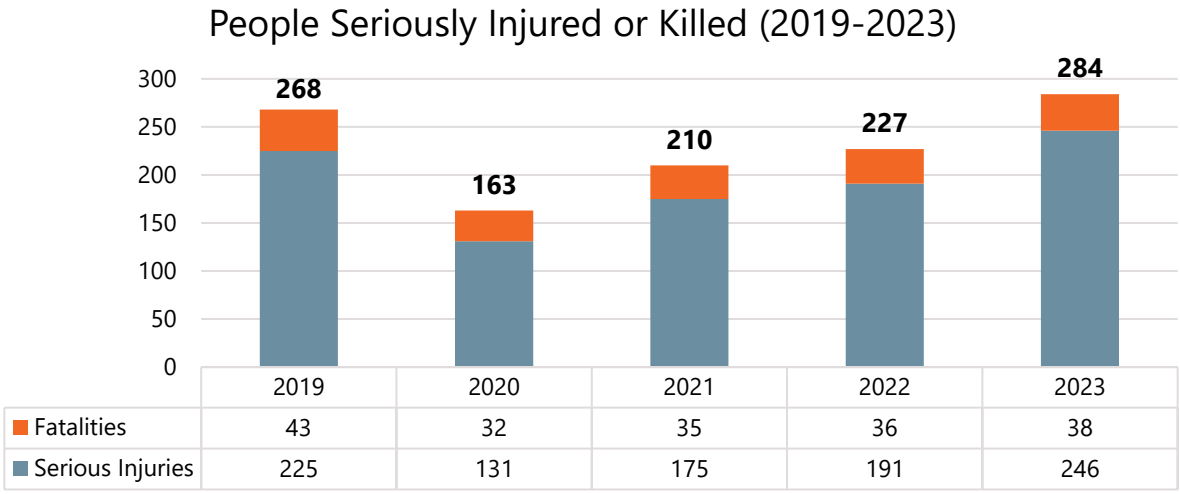
Table 5. Total fatal and serious injury crashes within Major Cities from 2019-2023.

Figure 1 shows a heatmap of crash locations, which are most dense in the city of Naples, Marco Island, and Immokalee, consistent with population centers.

Figure 1. Crash Density Heat Map: KSI Crashes



As a result of these crashes, there have been **184 fatalities in Collier County associated with traffic crashes from 2019-2023, or an average of 36 traffic fatalities per year** (Figure 2). Likewise, there were **968 individuals that were seriously injured from a crash, with an average of 193 annually.** Following crash data trends, both fatalities and serious injuries saw a dip from 2019-2020, followed by a steady increase to 2023. Fatalities saw a peak in 2019 at 43 deaths, and serious injuries saw a peak in 2023 at 246.



	2019	2020	2021	2022	2023
Fatalities	43	32	35	36	38
Serious Injuries	225	131	175	191	246

Figure 2. People seriously injured or killed in traffic crashes in Collier County from 2019-2023.

Neighboring Counties Fatality Comparison

The following analysis includes a comparison with neighboring counties for fatal crash records from the National Highway Traffic Safety Administration's (NHTSA) Fatality Analysis Reporting System (FARS). Based on the limitations of the FARS data query tool, the data do not filter out the fatal crashes on interstates. The most recent available data is for the period 2019-2022, resulting in this section not perfectly aligned with the timeframe used in the previous and preceding sections.

Compared to overall state levels and several neighboring counties, **Collier County has one of the lowest traffic fatality rates at 0.46 fatalities per 1,000 people** (Table 6). This **rate is lower than Florida's average of 0.63** but only slightly lower than Miami-Dade County's rate of 0.47. Collier County's **traffic fatality rate is similar to neighboring Lee and Broward Counties**, both of which have rates just over 0.5 per 1,000 people.

County	Fatalities (2019 – 2022)	Population (2022)	Fatalities Per 1,000 People
Collier County	178	380,221	0.46
Lee County	456	772,902	0.58
Hendry County	60	39,902	1.50
Broward County	1,049	1,940,907	0.54
Miami-Dade	1,267	2,688,237	0.47
Florida State	13,785	21,634,529	0.63

Table 6. Collier County traffic fatalities per 1,000 people compared to peer counties

Naples, the largest city in Collier County, had a traffic fatality rate of 0.36 per 1,000 people, lower than other large cities like Fort Myers, Fort Lauderdale, and Miami, which all had rates above 0.5 (Table 7).

City	Fatalities (2019 – 2022)	Population (2022)	Fatalities Per 1,000 People
Naples	7	19,315	0.36
Fort Myers	70	88,699	0.78
Fort Lauderdale	177	182,673	0.96
Miami	259	443,665	0.58

Table 7. City of Naples traffic fatalities per 1,000 compared to peer cities

Crashes by Mode

Between 2019-2023, an average of **21 pedestrian, 22 cyclist, 28 motorcyclist, and 160 motorist fatalities or serious injuries** occur from crashes every year in Collier County. Of the 184 fatalities in the county over this period, most were motorists (112), followed by motorcyclists (30), and pedestrians and cyclists (21 each). On average per year, this breaks down to 22.4 motorist fatalities, 6 motorcyclist fatalities, and 4.2 fatalities each for pedestrians and cyclists. Vulnerable Road Users are individuals at a higher risk of injury or fatality in the event of a traffic crash due to their lack of physical protection compared to vehicle occupants. These includes pedestrians, cyclists, motorcyclists, users of personal mobility devices (such as scooters), and other non-motorized road users.

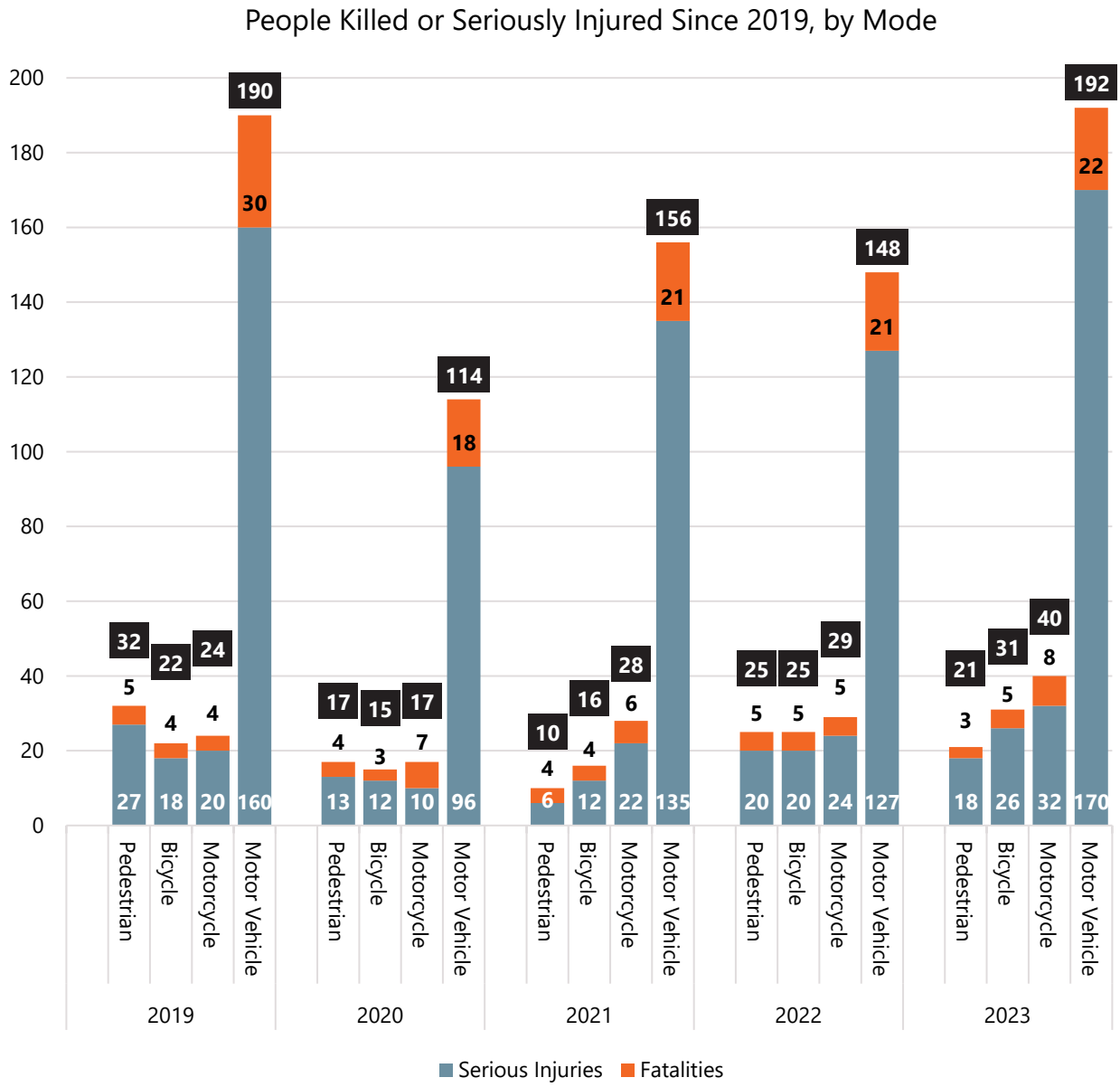


Figure 3. Total fatalities and serious injuries in Collier County from 2019-2023, by mode (pedestrian, bicycle, motorcycle, and motor vehicle).

Fatal and serious injuries decreased across most transportation modes from 2019 to 2020, then increased from 2021 to 2023, reaching or surpassing 2019 levels. For example, the number of pedestrians seriously injured fell from 32 to 10, then rose to 21 by 2023. Motorists seriously injured dropped from 160 to 96, then increased to 170 by 2023. While the serious injuries among cyclists and motorcyclists exceeded 2019 levels, rising from 22 to 31 and 24 to 40, respectively.

Calculating crash severity shows how severe crashes are for different types of transportation compared to how often they happen. Table 8 Table 8. Total percentage of crashes, total percentage of KSI crashes, and relative severity of crashes in Collier County from 2019-2023, by mode involved (pedestrian, bicycle, motorcycle, and motor vehicle).shows the percentage of total crashes and KSI crashes for each mode from

2019-2023. The relative severity score indicates how much more frequent severe crashes are for a specific mode. For example, a pedestrian severity score of 6.1 means severe pedestrian crashes are 6.1 times more common than expected based on the total number of crashes.

From 2019-2023, motorist involved crashes made up 95% of all crashes and 63% of the most severe (KSI) crashes. The remaining KSI crashes were fairly evenly split among pedestrians, cyclists, and motorcyclists, even though these groups account for only 5% of all crashes. The relative severity is the ratio of the percent of KSI crashes to the percent of crashes; where the relative severity exceeds 1, KSI are overrepresented for that crash type relative to the number of crashes that occur. **The relative severity shows that while crashes involving pedestrians, cyclists, and motorcyclists are less common, they tend to be much more severe**. This is especially true for motorcyclists, who are involved in just 1% of all crashes but account for 14% of KSI crashes. Pedestrians and cyclists each account for 2% of all crashes, but pedestrians make up 11% of severe (KSI) crashes, and cyclists 12%. Together, these two groups represent just 4% of all crashes but **23% of all KSI crashes**. Figure 4 shows crashes and corresponding KSI crashes by mode involved.

User Type Involved	% Crashes	% of KSI Crashes	Relative Severity
Pedestrian	2%	11%	6.1
Bicycle	2%	12%	7.1
Motorcycle	1%	14%	14.8
Motor Vehicle	95%	63%	0.7

Table 8. Total percentage of crashes, total percentage of KSI crashes, and relative severity of crashes in Collier County from 2019-2023, by mode involved (pedestrian, bicycle, motorcycle, and motor vehicle).

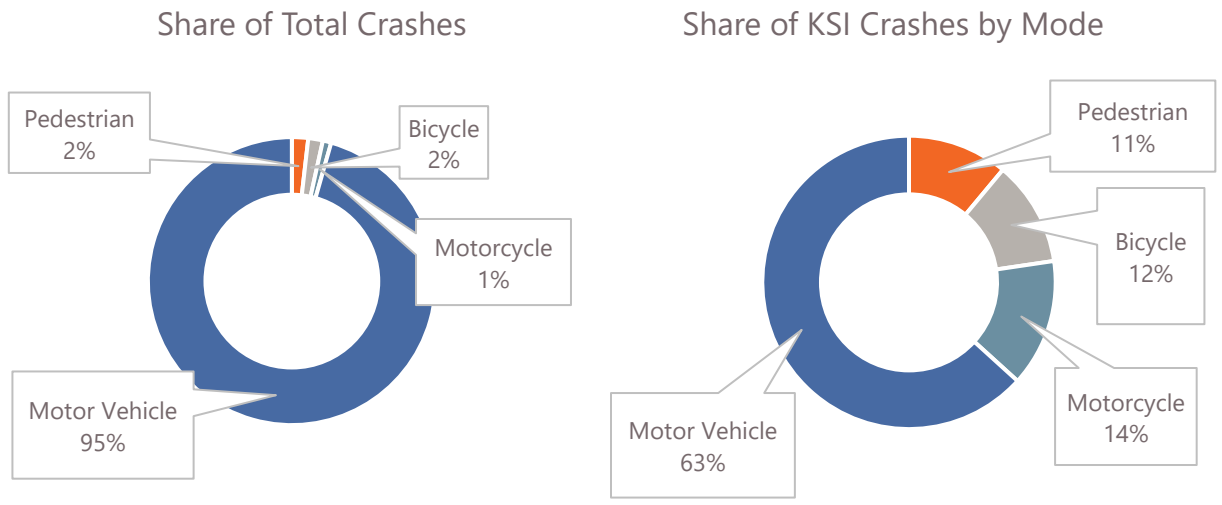


Figure 4. Share of total crashes by mode involved (left) and corresponding share of KSI crashes by mode (right).

For pedestrian crashes, **1 in every 10 crashes** leads to a fatality or serious injury. For cyclists, this number is just **1 in every 9 crashes** and for motorcyclists **1 in every 4 crashes.** Motor vehicle crashes, by contrast, result in a fatal or serious injury every **95 crashes**. Figure 5 shows the density maps of pedestrian and bicycle, or non-motorized crashes at county level as well as the more detailed maps for municipalities.

One fatality or serious injury occurs every…

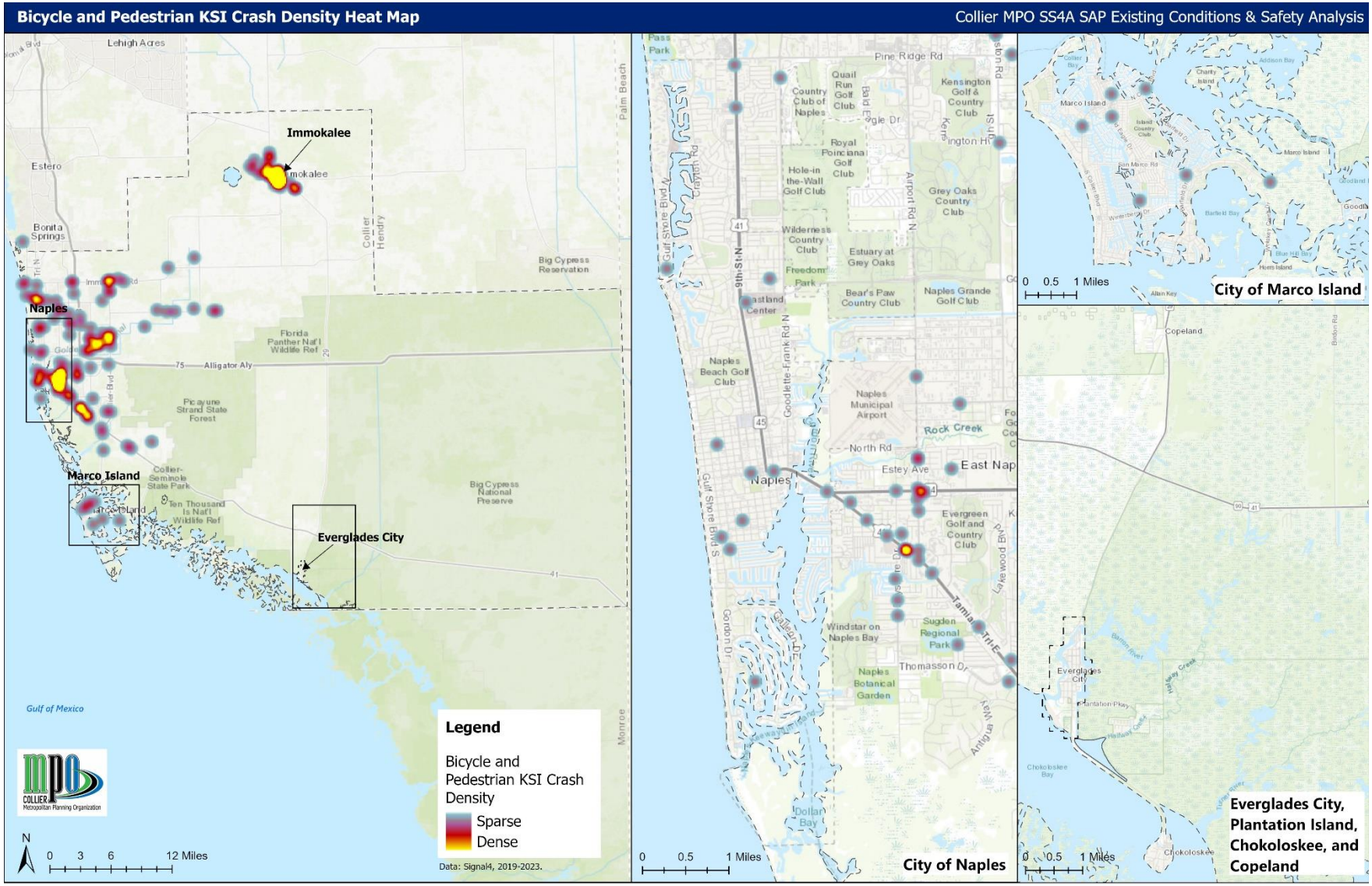
95
Motor Vehicle-Involved crashes

10
Pedestrian-Involved crashes

9
Cyclist-Involved crashes

4
Motorcycle-Involved crashes

Figure 5. Bicycle and Pedestrian KSI crashes



Crashes by Month and Season

Examining the months and seasons when crashes occur helps to understand how environmental factors like weather, temperature, daylight, and road conditions affect crash rates and influence travel behavior in Collier County. This analysis looked at the average KSI (killed or seriously injured) crashes for all months from 2019-2023 and the seasons in which these crashes occurred, as well as all bike and pedestrian KSI crashes:

- **Winter**: December*, January, and February (*includes the December of the previous calendar year)
- **Spring**: March, April, and May
- **Summer**: June, July, and August
- **Fall**: September, October, and November

Overall KSI Crashes by Month

The number of fatal or serious injury crashes in Collier County varies by month, with a **monthly average of 14.8 fatal or seriously injury crashes per month from 2019-2023** (Figure 6). There was a notable dip in the average in August to 9.5 KSI crashes and an increase in December to 18.75 KSI crashes. Likewise, March and May saw above average crashes where people were killed or seriously injured, at 17.75 and 16.5, respectively.

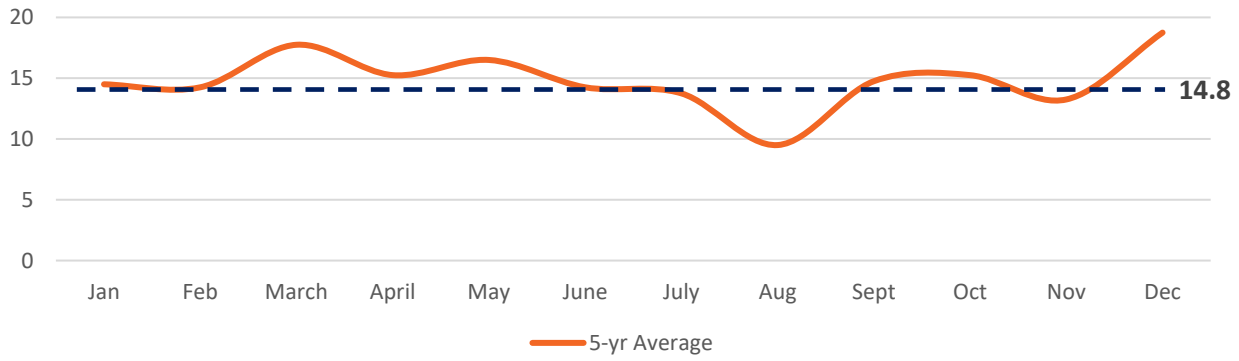


Figure 6. Average fatal or serious injury crashes by month in Collier County from 2019-2023.

On average, 44.4 KSI crashes occur in Collier County each season. Summer and fall have fewer KSI crashes, while winter and spring see significant increases, with spring reaching as high as 51.3 (Table 9). **Together, winter and spring account for nearly 60% of all KSI crashes during this period** (Figure 7). This aligns with the annual population increases to the region during these periods.

Season	Average (2019-2023)
Winter	50
Spring	51.3
Summer	36.8
Fall	39.8
Seasonal Average	44.4

Table 9. Average fatal and serious injury crashes per season in Collier County from 2019-2023.

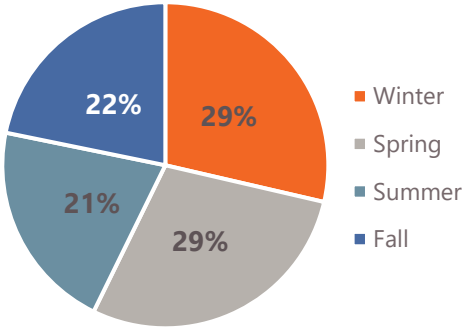


Figure 7. Percent share of fatal and serious injury crashes by season in Collier County from 2019-2023.

Bicycle and Pedestrian KSI Crashes by Month

There is an **average of 3.3 pedestrian and cyclist KSI crashes per month in Collier County** from 2019 to 2023. The winter months, especially December, February, and March, see the highest numbers, with March and December averaging up to six crashes (Figure 8). KSI crashes drop below average during the summer months of June, July, and August.

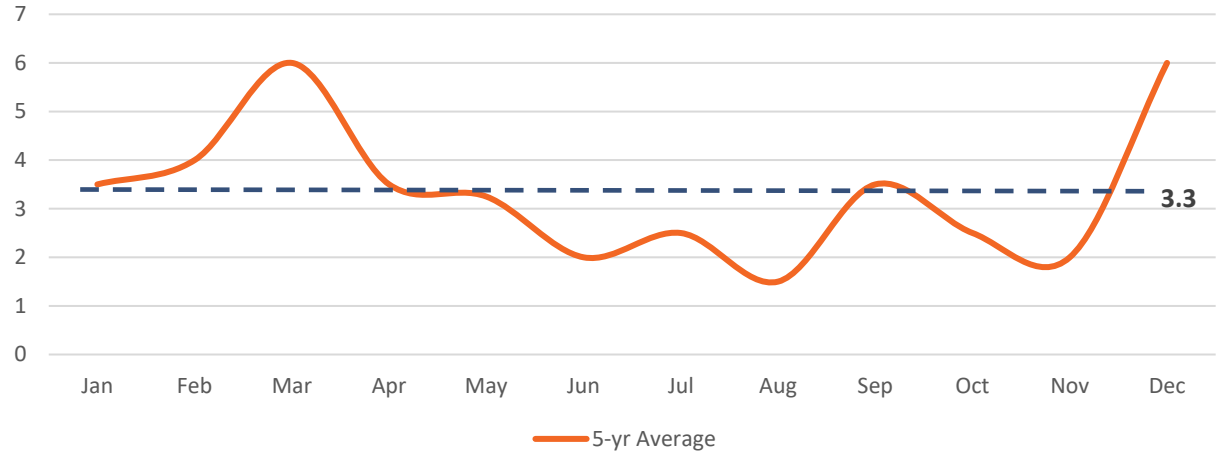


Figure 8. Total bicycle and pedestrian fatal or serious injury crashes by month in Collier County from 2019-2023.

Seasonal data shows more fatal or serious injury bicycle and pedestrian crashes in winter and spring, with both seasons averaging 12.5 crashes, higher than the average of 9.7 (Table 10). **The largest share, 66%, of pedestrian and bicycle KSI crashes occur in winter or spring** (Figure 9).

Again, these crash patterns align with the annual population increases to the region during these periods. They may also align to more moderate temperatures more suitable for walking and biking.

Season	Average (2019-2023)
Winter	12.5
Spring	12.5
Summer	5.75
Fall	8
Seasonal Average	9.7

Table 10. Average pedestrian and cyclist fatal and serious injury crashes per season in Collier County from 2019-2023.

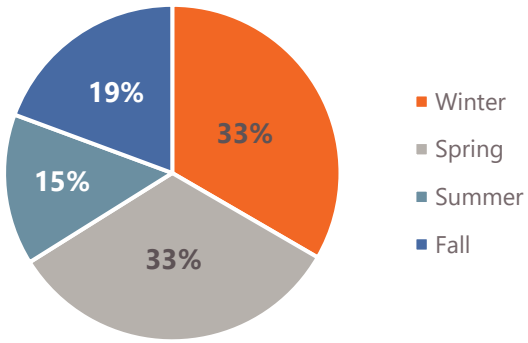


Figure 9. Percent share of pedestrian and cyclist fatal and serious injury crashes by season in Collier County from 2019-2023

Crashes by Day & Time

Temporal crash trends show how the frequency and severity of traffic incidents vary over time. In addition to analyzing patterns by season, examining time of day, and day of the week can identify risk factors and help improve road safety. This section examines temporal trends for all KSI crashes and those involving cyclists and pedestrians.

Overall KSI Crashes by Day & Time

Time of Day: For all KSI crashes, 39% occurred between 2 pm and 7 pm, with 4 pm each seeing the highest share of KSI crashes at 8%.

Day of Week: KSI crashes are spread somewhat evenly across all days of the week, with 70% occurring on weekdays vs. 30% on weekends.

Table 11 shows the total KSI crashes by both time of day and day of week for the time period.

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total	
12 AM	5	2	2	6	0	3	8	**26**	3%
1 AM	4	2	4	4	1	6	3	**24**	3%
2 AM	3	2	3	2	0	6	9	**25**	3%
3 AM	0	3	0	0	0	3	4	**10**	1%
4 AM	2	1	2	0	1	1	2	**9**	1%
5 AM	2	1	3	3	3	3	1	**16**	2%
6 AM	4	4	3	5	7	3	1	**27**	3%
7 AM	7	8	4	3	4	0	4	**30**	3%
8 AM	2	3	3	2	6	5	2	**23**	2%
9 AM	5	6	5	10	8	10	3	**47**	5%
10 AM	7	4	4	6	6	2	3	**32**	3%
11 AM	6	6	8	2	4	4	7	**37**	4%
12 PM	5	8	8	10	11	8	10	**60**	6%
1 PM	6	3	5	9	6	7	4	**40**	4%
2 PM	10	7	6	9	7	11	6	**56**	6%
3 PM	6	7	12	12	7	10	6	**60**	6%
4 PM	11	10	7	10	9	11	14	**72**	8%
5 PM	5	17	5	11	7	5	11	**61**	7%
6 PM	9	11	15	7	10	8	7	**67**	7%
7 PM	8	8	5	8	7	6	6	**48**	5%
8 PM	2	8	6	8	6	9	6	**45**	5%
9 PM	6	2	4	8	7	9	7	**43**	5%
10 PM	4	5	0	7	10	7	4	**37**	4%
11 PM	2	2	2	6	6	9	4	**31**	3%
Total	**121**	**130**	**116**	**148**	**133**	**146**	**132**	**926**	
	13%	14%	13%	16%	14%	16%	14%		

Table 11. Total KSI crashes by time of day and day of week in Collier County from 2019-2023.

Bicycle & Pedestrian KSI Crashes by Day & Time

Time of Day: Bicycle and pedestrian KSI crashes are evenly spread throughout the entire day with 70% occurring from 7 am – 7 pm. However, evening and late night (8pm-3am) still account for 25% of severe bicycle and pedestrian crashes.

Day of Week: For cyclists and pedestrians, 71% of KSI crashes occur on weekdays. Monday and Sunday see peaks in KSI crashes at 18% and 16% respectively, while all other days see 13%.

Table 12 shows the total bicycle and pedestrian KSI crashes by both time of day and day of week for the time period.

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total	
12 AM	1	0	0	1	0	1	3	6	3%
1 AM	0	1	1	1	0	1	0	4	2%
2 AM	0	0	1	0	0	3	2	6	3%
3 AM	0	1	0	0	0	1	0	2	1%
4 AM	1	0	0	0	0	0	0	1	0%
5 AM	0	0	1	0	3	1	0	5	2%
6 AM	1	2	1	1	1	0	0	6	3%
7 AM	4	3	3	2	1	0	2	15	7%
8 AM	2	1	2	0	1	1	0	7	3%
9 AM	3	1	3	1	1	4	0	13	6%
10 AM	5	1	1	1	3	0	2	13	6%
11 AM	0	2	1	1	2	1	3	10	5%
12 PM	2	3	3	3	1	2	2	16	8%
1 PM	2	0	1	2	1	2	0	8	4%
2 PM	3	1	0	1	2	1	0	8	4%
3 PM	3	1	0	1	0	3	1	9	4%
4 PM	2	1	1	1	1	2	1	9	4%
5 PM	0	3	2	2	1	1	4	13	6%
6 PM	2	3	4	0	2	1	2	14	7%
7 PM	6	2	1	1	2	1	0	13	6%
8 PM	0	1	2	2	3	3	1	12	6%
9 PM	2	0	0	4	0	2	2	10	5%
10 PM	0	0	0	0	1	2	1	4	2%
11 PM	0	1	0	3	2	1	1	8	4%
Total	39	28	28	28	28	34	27	212	
	18%	13%	13%	13%	13%	16%	13%		

Table 12. Total bicycle and pedestrian KSI crashes by time of day and day of week in Collier County from 2019-2023.

Crashes By Age of Victim

In Collier County, the largest share of KSI crashes (24%) involves the age cohort 20 to 30 years old. **This age group consists of the most drivers killed or seriously injured in crashes, despite only making up 9% of Collier County's population.** Drivers of other age groups represent between 12%-15% of KSI victims. Collectively, 20-40 year old drivers account for 39% of victims, while only making up 19% of the population. Figure 10 compares KSI victim driver age (left) to share of the population (right).

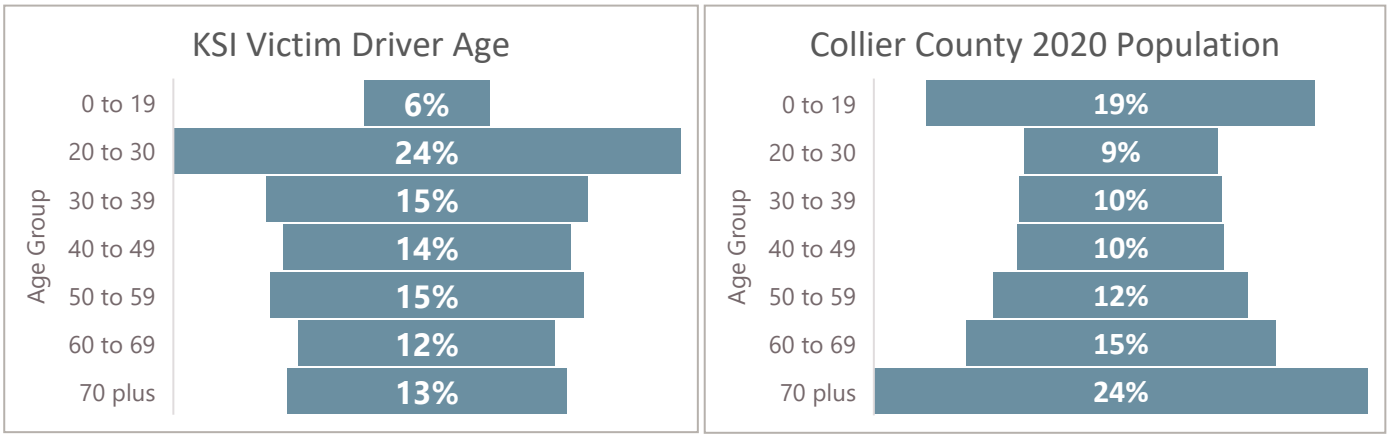


Figure 10. Age distribution of drivers killed or seriously injured in crashes in Collier County from 2019-2023 (left) and age distribution of the total population of Collier County in 2020 from the 2020 American Community Survey (right).

When examining the ages of pedestrians and cyclists killed or seriously injured in crashes, younger age groups are more prominent. **Despite the age cohort of 0-19 years making up only 19% of the population, this age group accounts for 27% of pedestrian and 21% of cyclist KSI victims** (Figure 11).

While children and teens constitute the largest share of KSI victims, younger adults and middle-aged residents tend to follow as a large share of victims**. For both pedestrians and cyclists, the second highest victim age group is 40-49 year olds at 19%, though these individuals only make up 10% of the population in Collier County**. Likewise, the ages of 20-29 and 30-39 make up a significant number of victims, representing 26% for pedestrian and 33% of cyclists.

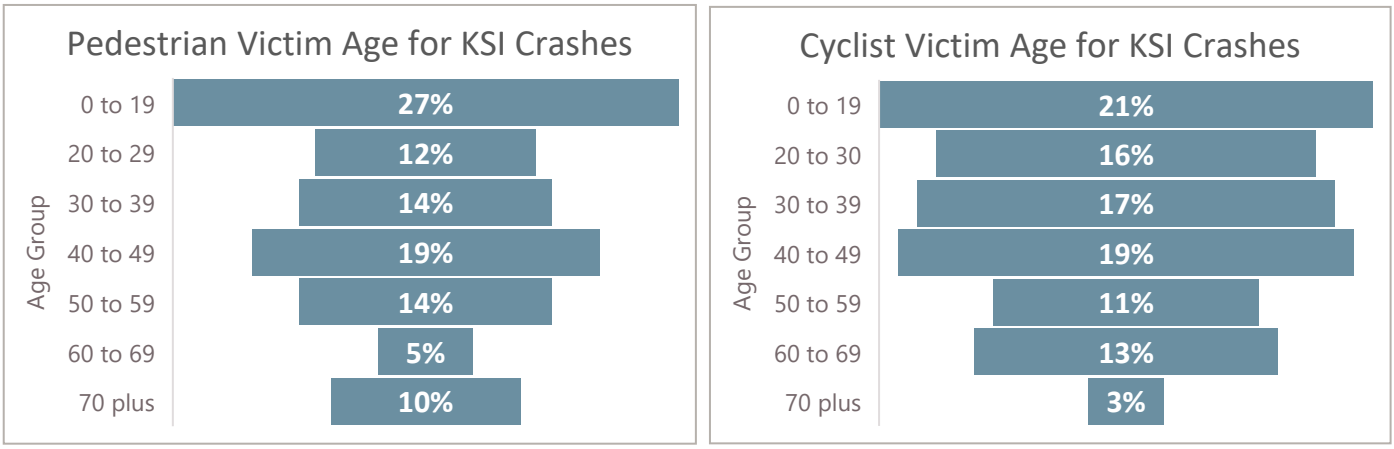


Figure 11. Age distribution of pedestrian (left) and cyclist victims (right) of KSI crashes in Collier County from 2019-2023.

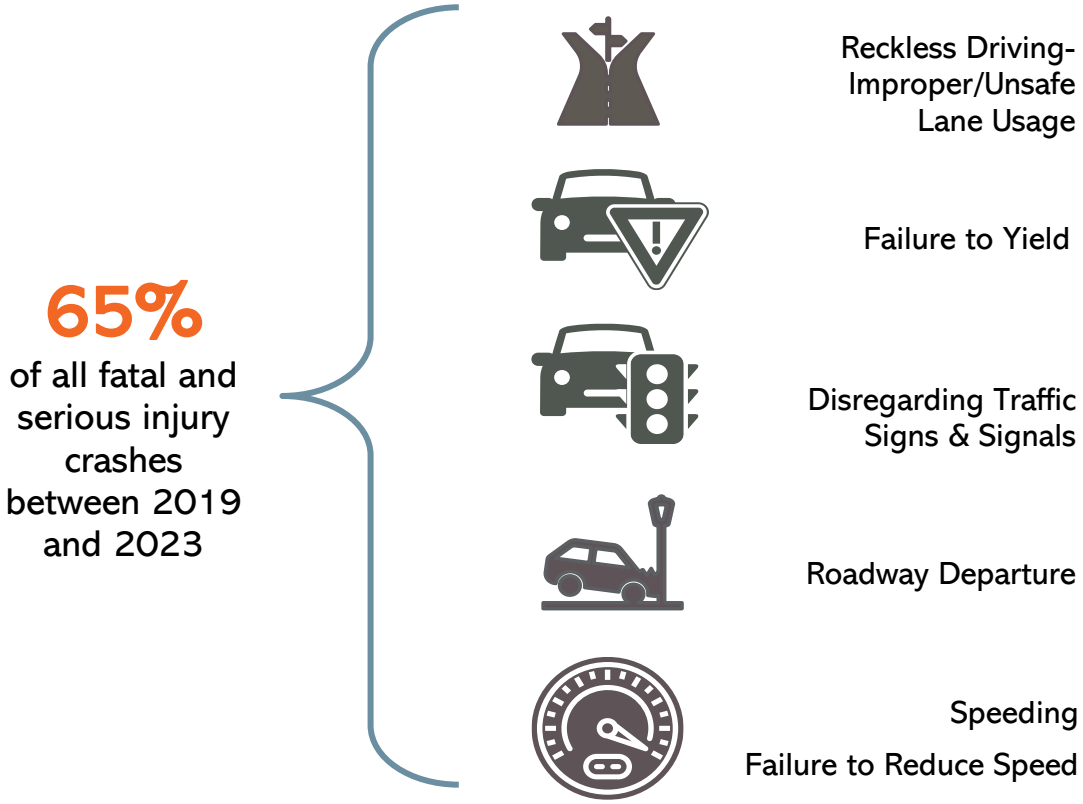
Crashes by Driver Contributing Action

The actions of drivers that contribute to a crash, as reported by law enforcement, are the most significant factors leading to the crash for each driver involved. These causes are determined by the officer at the scene and may include multiple contributing factors per crash. **In Collier County, 65% of all fatal and severe injury crashes result from five primary causes: failure to yield, disregarding traffic signals, speeding, reckless driving, and roadway departure.** Reckless driving (24%), failure to yield (18%), and roadway departure (12%) represent the highest shares of contributing actions (Table 13).

	% Share of Fatal or Severe Injury Crashes
Reckless Driving[1]	24%
Failure to Yield	18%
Roadway Departure	12%
Disregarding Traffic Signals	8%
Speeding	4%

Table 13. Primary contributing action of crashes in Collier County. Note that 65% represents the share of the sum of these factors against total KSI crashes. These five factors will not sum to 65% due to crashes having multiple reported contributing actions.

[1] Reckless driving: A driver who exhibited any two of the following behaviors: Failed to Yield Right of Way (code 3), Followed Too Closely (code 10), Ran Red Light (code 11), Ran Stop Sign (code 13), Improper Passing (code 15), Failed to Keep in Proper Lane (code 25), Disregarded Other Traffic Sign (code 27), or Disregarded Other Road Markings (code 28). More Information and definitions on other contributing actions can be found on: https://signal4analytics.com/assets/files/S4_Data_Dictionary.pdf



Parking Lot Crashes

In Collier County **a quarter of all crashes took place in parking lots from 2019-2023**, but comprise a relatively low percentage of KSI crashes at 6%. Table 14 details the share of crashes, serious crashes, fatal crashes, and combined KSI crashes in parking lots for all modes.

Crash Location	All Locations	Parking Lots	% Crashes in Parking Lots
Total Crashes	57,005	14,080	25%
Serious Injury Crashes	759	50	7%
Fatal Crashes	170	4	2%
Fatal and Serious Injury Crashes	929	54	6%

Table 14. Crashes by location for all road users from 2019-2023, including all locations, parking lot locations and percent of crashes in parking lots.

Comparatively, **parking lots make up a third of crash locations for bicycle and pedestrian crashes**. These user types see greater percentages of serious or fatal injury crashes in parking lots, with 11% of serious injury and 7% of fatal crashes occurring in parking lots. **Together, parking lot locations accounted for 10% of all fatal and serious injury crashes for pedestrians and bicyclists, which is disproportionately higher than**

for all road users (6%). Table 15 details the share of crashes, serious crashes, fatal crashes, and combined KSI crashes in parking lots involving bicycles and pedestrians.

Crash Location	All Locations	Parking Lots	% Crashes in Parking Lots
Total Crashes	2,032	667	33%
Serious Injury Crashes	170	19	11%
Fatal Crashes	42	3	7%
Fatal and Serious Injury Crashes	212	22	10%

Table 15. Crashes by location for bicycle and pedestrians from 2019-2023, including all locations, parking lot locations and percent of crashes in parking lots.

SYSTEMIC ANALYSIS

The systemic analysis assesses the relative severity of different types of crashes and types of crash locations. This is helpful, as location prioritization should not just look at where crashes and KSI crashes have occurred, but the types of places in which crashes and KSI crashes commonly occur. The relative severity is the ratio of the percent of KSI crashes to the percent of crashes; **where the relative severity exceeds 1, KSI are overrepresented for that crash type relative to the number of crashes that occur.**

Crash Type Analysis (Motor Vehicle Crashes)

Understanding which crash types occur most often, as well as which crash types most often result in fatalities and serious injuries is critical for developing effective safety countermeasures. **Between 2019-2023 the most common crash type was rear end, representing 34% of all crashes and 15% of all KSI crashes.** Sideswipe and other / non-collision crashes make up the second largest share at 12% and 27%, respectively. However, for KSI crashes specifically, ran off roadway / fixed object crashes represented the highest share of KSI crashes at 19%. This was followed by left turn, rear end, and pedestrian crashes.

In addition to share of crashes and KSI crashes, Table 16 includes a measure of relative severity, which helps demonstrate the crash types share of severe crashes relative to its share of total crashes.

Category	Crash Type[2]	Share Crashes	Share KSI Crashes	Relative Severity
Intersection/ Access Management	Left Turn	7%	17%	2.5
	Angle	6%	8%	1.3
	Rear End	34%	15%	0.4
	Right turn	2%	2%	0.9
Lane Departure	Ran off Roadway/Fixed Object	9%	19%	2.3
	Head On	1%	6%	5.8
	Rollover	0%	5%	10.9
	Sideswipe	12%	4%	0.4
Other	Other/ Non-Collision	27%	2%	0.1
	Animal	1%	0%	0.3

Table 16. Table of crash types (organized by category) and their share of total crashes, KSI crashes, and relative severity in Collier County from 2019-2023.

Analyzing these findings through the lenses of frequency and severity can pinpoint which types of crashes require the most urgent attention for safety interventions. Several key findings can be understood from Table 16:

- Intersection / Access Management:
    - Rear end crashes are common but tend to be less severe when they occur.
    - **Left turn and angle crashes, while only moderately common, tend to be more severe when they occur**.

[2] Definitions and graphical illustrations of each crash type can be found on https://signal4analytics.com/assets/files/S4_Data_Dictionary.pdf

  - Right turn crashes are less common and less severe.
- Lane Departure:
  - Sideswipe crashes are more common, but tend to be less severe when they occur.
  - **Ran off roadway / fixed object crashes represent 9% off all crashes but 19% of KSI crashes**, tending to be more severe when they occur.
  - Both head on and rollover crashes are rare, representing less than 2% of all crashes combined, but these crash types tend to be very severe when they occur.
- Other:
  - While other / non-collision crashes are relatively frequent, they tend to not be very severe.

Different crash types may also tend to be more prevalent in different contexts and environments. For example, the distribution of angle, left turning, and ran off roadway/fixed object KSI crashes in Figure 12, Figure 13, and Figure 14, demonstrates a **relatively higher concentration of angle and left turn crashes in urban areas**. In contrast, ran off roadway/fixed object crashes show more evenly distribution across both urban and rural parts of the county.

Figure 12. Crash Density Heat Map: Angle KSI Crashes

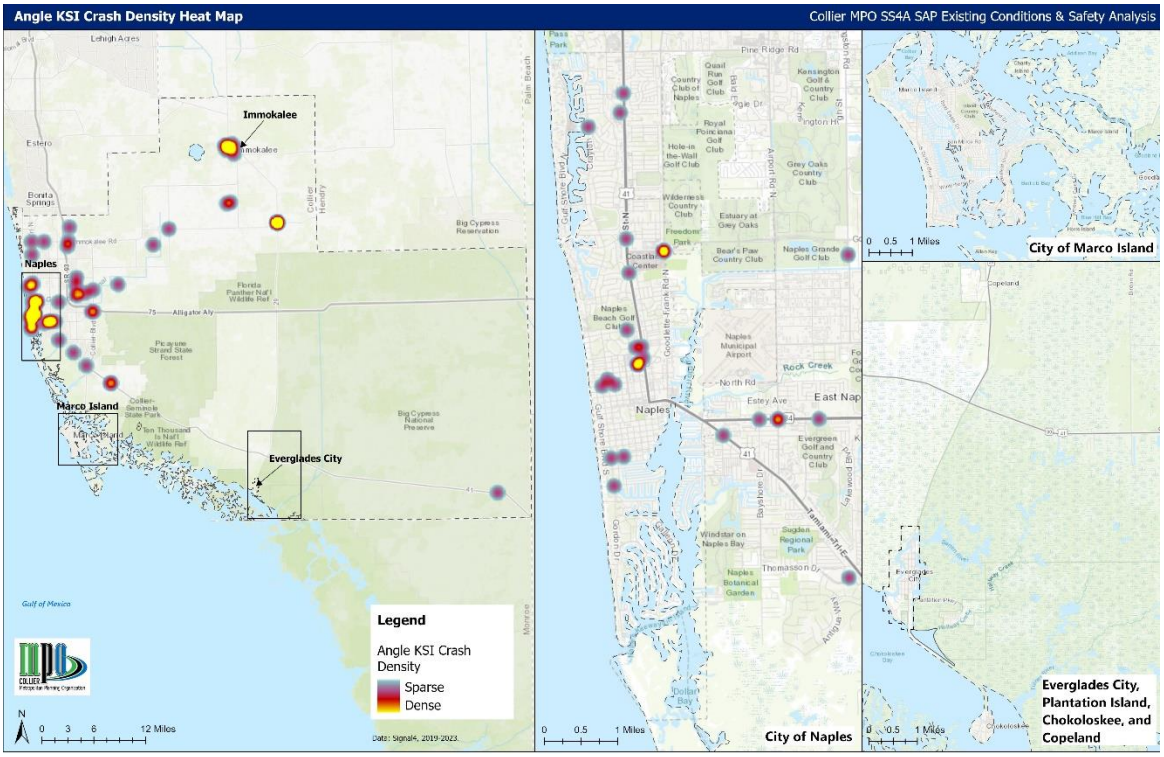


Figure 13. Crash Density Heat Map: Left Turn KSI Crashes

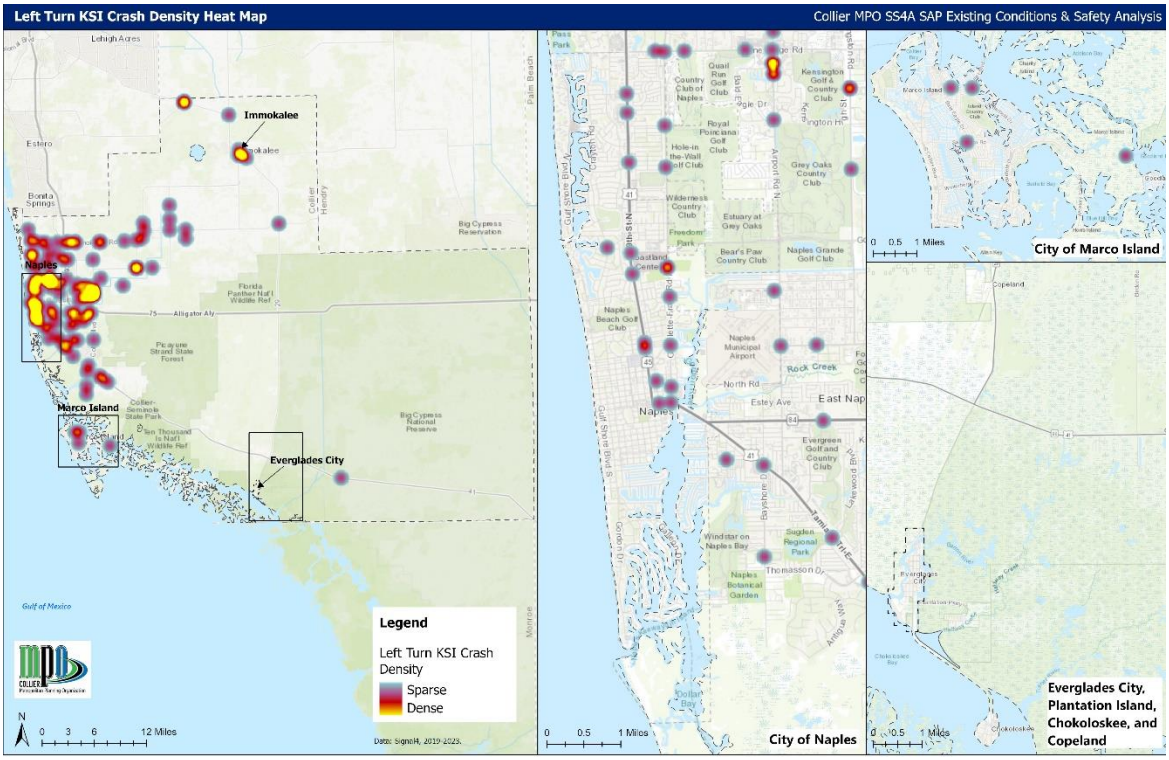
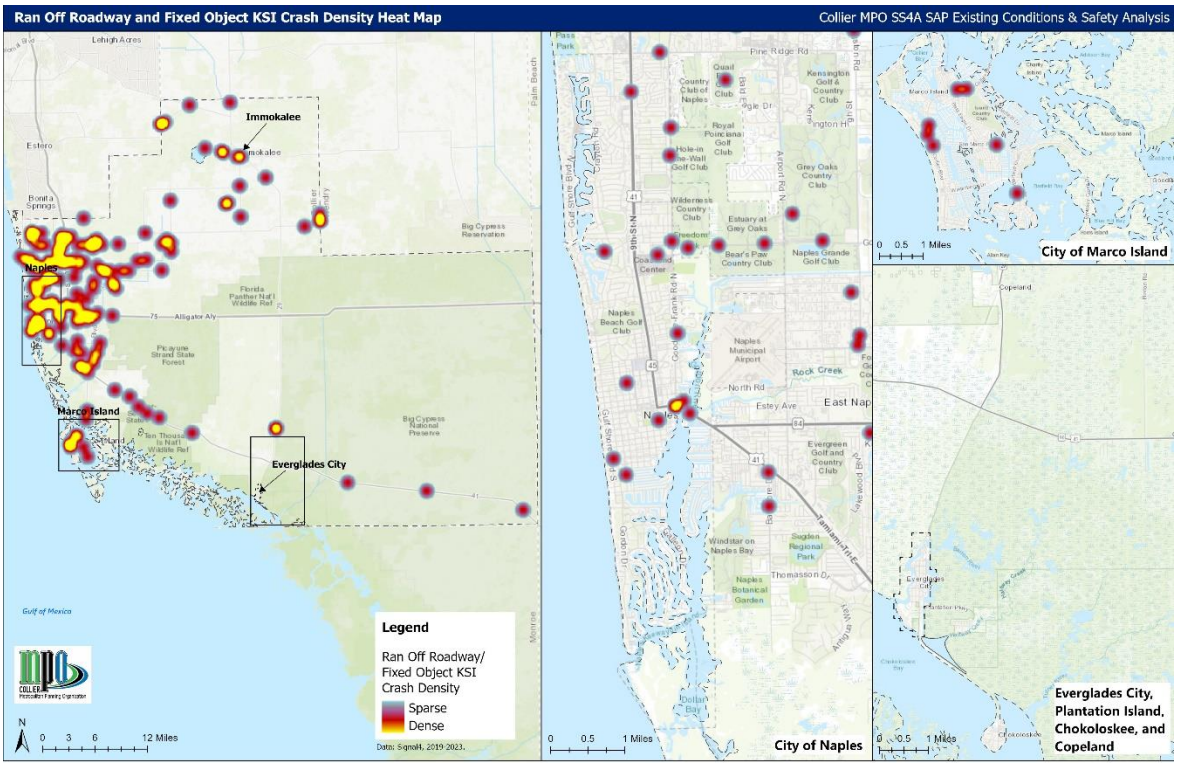


Figure 14. Crash Density Heat Map: Ran off Roadway/Fixed Object KSI Crashes



High-Risk Features Analysis

The following sections summarize the likelihood of different intersection and roadway segment types resulting in a crash, serious injury, or fatality. By conducting this systemic analysis, the county can prioritize which locations should be prioritized for future investment. This analysis is conducted using relative risk scores; any value over 1 indicates an above-average risk for that feature.

For the segment systemic analysis, all non-Interstate roadways found in the FDOT GIS Data Portal were included. For the intersection systemic analysis, all intersections where segments met were included, along with all signal locations identified using Open Streets Map. **Local street classifications were omitted from this analysis due to data limitations on local street features such as number of lanes and Average Annual Daily Traffic (AADT)**.

Intersections

This section provides an overview of crash data at both rural and urban intersections in Collier County, examining intersection characteristics such as signalization, number of lanes among intersection legs, and the AADT type.

The relative risk is calculated for key metrics such as overall crashes, KSI crashes, and various crash types identified as both high-risk and high-frequency in the Crash Type Analysis. **Those with greater frequency, or risk ratios greater than 1, are highlighted in red.** While all intersection types are included in the analysis to ensure a complete dataset, trends from those with less than 4 intersections are excluded from this highlight due to low sample size.

Urban Intersection

Table 17 shows the relative risk of key metrics for urban intersections for the crash category and across intersection typologies.

On urban roadways in the county, the relative risk of different crashes varies across intersection type:

- **The relative risk for crashes and KSI crashes tends to be higher at high-volume intersections with a greater number of lanes.** This is true at both signalized and non-signalized locations, but highest at non-signalized intersections.
- **There is an above-average risk of pedestrian and cyclist crashes at 6+ lane, high-volume intersections (both signalized and non-signalized)**
- However, the **highest risk for pedestrian KSI crashes (5.5) is at signalized 1 or 2 lane intersection with low AADT**. The highest risk for cyclist KSI crashes is 6 or more lane intersections with moderate to high AADT.
- Of **the crash types examined, all are more frequent at intersections with 6+ lanes. The greatest risk occurs at 6+ lane, high-volume, non-signalized intersections.**

Intersection Characteristics	Signalized Intersection	No							Yes								
	Max Lanes	1-2	3-5			6+			1-2		3-5			6+			Unk
	AADT Type	<25K	25K-50K	50K+	<25K	25K-50K	50K+	<25K	25K-50K	<25K	25K-50K	50K+	<25K	25K-50K	50K+	<25K	Unk
	Intersection Count	13	3	1	6	5	12	1	3	18	25	1	28	129	85	15	2
	Crash Category																
Relative Risk	KSI	1.2	1.9	5.8	0.0	1.2	2.2	0.0	1.9	0.5	1.1	1.9	0.4	0.9	1.2	0.8	1.9
	Crash	0.3	1.1	5.0	0.2	1.2	4.3	1.1	2.0	0.3	1.0	2.3	0.5	0.6	1.5	0.8	1.2
	Pedestrian KSI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	4.0	0.0	0.0	0.8	0.6	0.0	0.0
	Pedestrian	0.5	2.0	0.0	2.0	1.2	2.0	0.0	5.9	1.6	1.4	5.9	0.4	0.7	1.2	0.0	0.0
	Bicycle KSI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3	0.0	1.0	24.8	0.9	1.2	1.2	0.0	0.0
	Bicycle	0.3	0.6	0.0	1.3	3.0	1.3	0.0	2.5	0.6	0.7	5.6	1.2	0.7	1.7	0.3	0.0
	Left Turn	0.4	2.1	13.0	0.4	0.3	1.9	0.7	1.9	0.5	1.3	1.0	0.8	0.8	1.2	0.8	2.5
	Angle	1.0	2.2	2.0	0.0	1.4	2.5	0.0	7.1	0.9	1.1	0.0	0.5	0.7	1.2	1.4	1.0
	Ran off Roadway	0.7	0.3	8.4	0.3	1.3	4.2	0.0	0.3	0.2	1.3	4.7	0.7	0.7	1.1	1.1	2.3
	Speed-Related	0.5	0.6	6.1	0.0	1.0	3.4	1.7	1.4	0.2	0.9	4.3	0.5	0.7	1.4	1.3	3.5

Table 17. Relative risk of crashes per intersection on urban roadways.

Rural Intersections

Table 18 shows the relative risk of key metrics for rural intersections for the crash category and across intersection typologies.

In rural roadways in the county, the relative risk of different crashes varies across intersection type:

- **Overall, non-signalized rural intersections have a greater frequency of KSI crashes.** 1 or 2 lane non-signalized intersections are nearly 2 times (1.8) riskier than the average rural intersection.
- **Signalized rural intersections have less frequent KSI crashes, but a greater risk for crashes in general.** The relative risk for a crash is greatest (1.5) for rural signalized roadways involving 6+ lanes.
- Of the crash types examined, the **highest risk of left turn crashes is at 6+ lane signalized intersections**, while ran off roadway risk is found to be higher at unsignalized intersections.
- **Among crashes marked as speed-related, 6+ lane signalized intersections were found to have the highest risk.**
- **Pedestrian and cyclist crashes are uncommon at rural intersections.**

Intersection Characteristics	**Signalized**	**No**			**Yes**		
	Max Lanes	**1-2**	**3-5**	**6+**	**1-2**	**3-5**	**6+**
	AADT Type	**<25K**	**25K-50K**	**<25K**	**<25K**		
	Intersection Count	**10**	**1**	**1**	**3**	**4**	**5**
	Crash Category						
Relative Risk	KSI	1.8	2.0	0.0	0.0	0.5	0.4
	Crash	0.7	7.0	0.4	0.5	0.1	1.5
	Pedestrian KSI	0.0	0.0	0.0	0.0	0.0	0.0
	Pedestrian	0.0	0.0	0.0	8.0	0.0	0.0
	Bicycle KSI	0.0	0.0	0.0	0.0	0.0	0.0
	Bicycle	0.0	0.0	0.0	0.0	0.0	0.0
	Left Turn	0.9	4.3	1.4	0.8	0.0	1.3
	Angle	0.4	12.5	0.0	1.4	0.3	0.4
	Ran off Roadway	1.1	6.3	0.6	0.2	0.3	0.8
	Speed-Related	0.7	3.6	0.0	0.4	0.0	2.4

Table 18. Relative risk of crashes per intersection on rural roadways.

Segments

Following the methodology and format of the intersections analysis, the tables below present a systemic analysis of urban and rural road segments in Collier County, focusing on crash types and severity across different lane types and Average Annual Daily Traffic (AADT) categories.

Relative risk is calculated per lane mile and for key metrics such as overall crashes, KSI crashes, and various crash types identified as both high-risk and high-frequency in the Crash Type Analysis. Those with greater frequency, or risk ratios greater than 1, are highlighted in red.

Urban Segments

Table 19 shows the relative risk of key metrics for urban roadways – for the crash category and across segment typologies. Those with greater frequency, or risk ratios, are highlighted in red.

- On urban segments, **relative risk for roadways with 1-2 lanes are consistently lower, regardless of AADT.**
- There is an increased risk for both crashes and KSI crashes on roadway segments with more than 3 lanes. The risk **of KSI crashes is greatest (1.4) on 6+ lane segments with moderate AADT.**
- **Pedestrian crashes (2.1) and pedestrian KSI crashes (1.9) are of greatest risk on 3 to 5 lane urban roadway segments with lower AADT.**
- The **greatest risk for bicycle crashes and bicycle KSI crashes occurs on 6+ lane roadway segments**.
- **Of the crash types examined, all occur more frequently than average on 3 to 6+ lane roadway segments with moderate AADT.** Of these, speed-related crashes carry the highest risk – nearly 2x the average risk on 6+ lane roadways.

Roadway Characteristics	Lane Type	1-2		3-5		6+	
	AADT Type	25K+	<25K	25K+	<25K	25K+	<25K
	Midblock Length (Miles)	9.4	81.7	35.0	26.4	68.1	15.3
	Category						
Relative Risk	KSI	0.7	0.5	1.3	0.9	1.4	1.3
	Crash	0.3	0.3	1.4	0.6	1.8	1.4
	Pedestrian KSI	0.6	0.9	0.5	1.9	1.3	0.0
	Pedestrian	0.1	0.8	0.9	2.1	1.2	0.2
	Bicycle KSI	0.0	0.6	1.3	1.4	1.2	1.5
	Bicycle	0.2	0.5	1.3	1.2	1.6	0.7
	Left Turn	0.4	0.5	1.5	0.8	1.5	1.0
	Angle	0.4	0.8	1.6	1.1	1.1	0.9
	Ran off Roadway Crash	0.5	0.4	1.3	0.8	1.6	1.5
	Speed-Related Crash	0.3	0.2	1.4	0.5	1.9	1.4

Table 19. Relative risk of crashes per lane-mile on urban roadways.

Rural Segments

Table 20 shows the relative risk of key metrics for rural roadways for the crash category and across segment typologies.

- In general, **rural roadways have low AADT and risk increases with the number of lanes**. Crashes are 8.5 times more likely on roadways with 6+ lanes, and KSI crashes are nearly 3 times more likely. However, the greatest number of rural roadway miles have 1-2 lanes.
- Risk for all non-motorist crashes appears to be higher on larger rural roadways (3+ lanes); however, there are too few rural non-motorist crashes to definitively identify a trend.
- Of the crash types examined, all have the greatest risk on rural roadways with 6+ lanes. Of these, speed-related crashes carry the highest risk – nearly 12x the average risk.

Roadway Characteristics	**Lane Type**	**1-2**	**3-5**	**6+**
	AADT Type	**<25K**		
	Midblock Length (Miles)	**159.6**	**17.6**	**5.2**
	Crash Category			
Relative Risk	KSI	0.9	1.4	2.8
	Crash	0.7	1.4	8.5
	Pedestrian KSI	0.8	3.4	0.0
	Pedestrian	0.6	4.1	3.5
	Bicycle KSI	0.8	0.0	11.7
	Bicycle	0.8	0.0	10.0
	Left Turn	0.7	2.2	4.8
	Angle	0.7	3.3	3.6
	Ran off Roadway Crash	0.8	1.2	5.5
	Speed-Related Crash	0.6	1.0	11.9

Table 20. Relative risk of crashes per lane-mile on rural roadways.

Equity Considerations

The Role of Equity in a Safety Action Plan

Studies show that historically disadvantaged communities – including communities of color, low-income communities, and communities with limited resource availability— face higher injury risks due to lack of infrastructure investment and high rates of walking, bicycling, and transit use. In 2021, Indigenous, Black or African American, and Hispanic or Latino people in the United States faced higher traffic fatality rates than the overall population, with the disparity even more pronounced for certain groups outside of a vehicle. The fatality rate for Black and African American pedestrians and cyclists stood at 4.1 fatalities per 100,000 people while that for American Indian or Alaskan Native stood at 6.6, in comparison to a fatality rate of 2.5 for the total population.[3] Evidence suggests that this disparity is widening: between 2017 and 2021, overall fatal traffic crashes rose 15% while fatalities among Black and Hispanic people increased 31% and 28% respectively.[4] The USDOT has identified that people living in the 40% of counties with the highest poverty rate had 35% more fatalities than the national average per capita.[5]

These facts are not only concerning on their own but also contribute to economic insecurity, limited access to opportunities, health disparities, and other inequities, thereby deepening the impact of each fatality on families, neighborhoods, and communities. These same communities often experience less infrastructure and investment compared to more privileged areas or suffer from the negative effects of arterials and highways that divide neighborhoods, hinder mobility, and increase high-speed vehicle traffic. This has resulted in a significant disparity in the quality and design of streets in underserved communities.

To effectively address crash factors on the County's roads, it's essential to identify the populations that the Safety Action Plan will serve and determine project priorities. The USDOT, FDOT, and Collier MPO are committed to creating a transportation network that equitably serves all users. Achieving zero traffic fatalities necessitates a dedicated effort to understand and tackle these disparities at their core. Vision Zero's principle of equitable infrastructure investment focuses on allocating more resources to areas that face disproportionate burdens, aiming to correct the impacts of past decisions. By investing equitably in safer streets, we can significantly enhance safety, disrupt the cycles of traffic deaths and serious injuries, and foster healthier, more just, and prosperous communities.

Traffic Fatalities & Race in Collier County

The National Highway Traffic Safety Administration (NHTSA) documents racial data for traffic fatalities through the Fatality Analysis Reporting System (FARS). Traffic fatalities in Collier County from 2017 through 2021 were captured and analyzed to identify any racial disparities among traffic fatality victims

[3] United States Department of Transportation. 2024. NHTSA's National Center for Statistics and Analysis, Traffic Safety Facts: Race and Ethnicity. Washington, DC: USDOT. Pg. 2-3, 5.
[4] Ibid. Pg. 3
[5] United States Department of Transportation. 2022. National Roadway Safety Strategy. Washington, DC: USDOT. Pg. 7.

in the County.[6] Results from this analysis are outlined in Table 21. Consistent with national trends, **non-white populations in Collier County bear a disproportionate number of traffic fatalities.**

	White (Non-Hispanic)	Hispanic or Latino	Black or African American (Non-Hispanic)	Asian (Non-Hispanic)
Population in Collier County	233,909	108,822	24,232	5,338
Share of Collier County (%)	61.5%	28.6%	6.4%	1.4%
Persons Killed in Fatal Crashes	104	71	20	5
Share of Fatalities, 2017-2021 (%)	51%	35%	10%	2%
Fatalities per 100,000 Residents	**44.46**	**65.24**	**82.54**	**93.67**

Table 21. Race and fatalities analysis. Data Source: American Community Survey, 2018-2022: ACS 5-Year Estimates; Fatality Analysis Reporting System (FARS), 2017-2021.

Traffic Crashes & Disadvantaged Communities in Collier County

The MPO's previous identification of Environmental Justice (EJ) communities were used to examine the issue of equity in terms of traffic safety countywide. These designations, updated for use in the 2019 Collier MPO Bicycle and Pedestrian Master Plan, identify disadvantaged communities at the census block group level by analyzing four socio-economic factors: minority status, poverty, no access to a vehicle, and limited ability to speak English. The EJ communities were given ranking scores of low (one) to high (four or five) factors meaningfully greater (>10% points) than the countywide percentage, and refined by MPO staff and advisory committees.[7] Environmental Justice areas are shown in Figure 15.

In Collier County, **EJ areas include 34% of the county population and 27% of the total households but contain disproportionately large portions of the County's underserved populations**, including non-white, impoverished, disabled, carless, and non-English speaking communities (Table 22).

[6] Traffic fatalities include all fatal crashes in FARS database that fall within the County boundary. This matches the methodology for all other crash analyses in the memo.

[7] Full details on EJ methodology can be found in the 2019 Collier MPO Bicycle and Pedestrian Master Plan accessed at https://www.colliermpo.org/bp-master-plan/

Category	In Collier County	Share of County (%)	In EJ Areas*	Share in EJ Areas (%)
Total Population	**380,221**	-	**129,626**	**34%**
Total Households	**156,768**	-	**42,985**	**27%**
Minority Population (People) *Non-white population*	101,782	27%	58,265	57%
Elderly Population (People) *Population aged 65+*	124,784	33%	22,299	18%
Poverty Population (People) *Population below poverty level*	39,131	10%	18,578	47%
Population Impacted by Disability (Households) *Households with a person with a disability*	34,458	22%	9,550	28%
Carless Population (Households) *Households with zero vehicles available*	7,270	5%	3,483	48%
Non-English Speaking Population (Households) *Households with limited English proficiency*	10,650	7%	6,199	58%

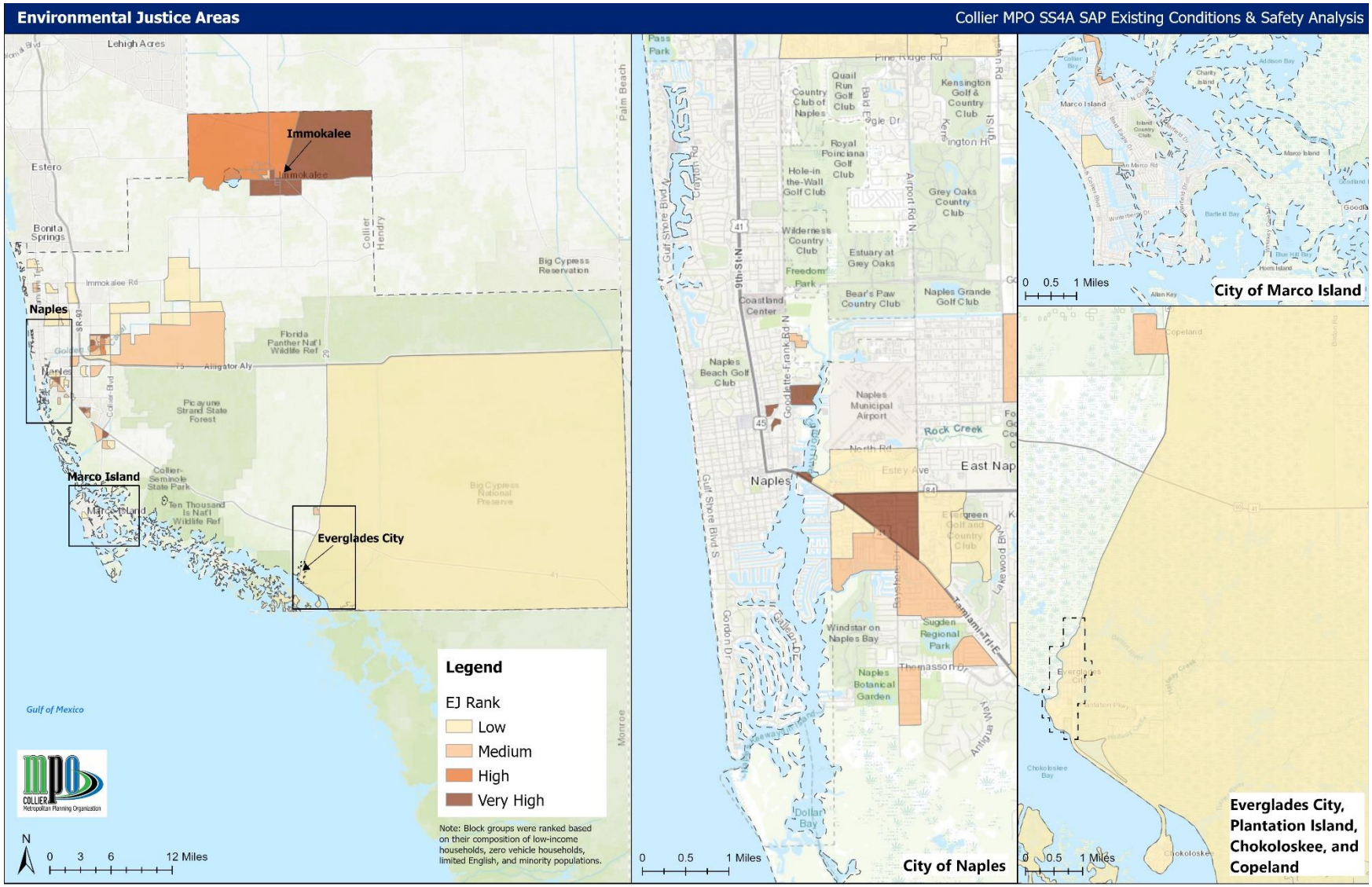
Table 22. Environmental Justice (EJ) areas and disadvantaged communities.
Data Source: American Community Survey, 2018-2022: ACS 5-Year Estimates.
**EJ populations are approximate to due to slight geographic changes in the block group level in the 2020 Census*

Between 2019 and 2022, approximately 35% of all crashes, and 38% fatal and serious injury crashes occurred on the 28% of roadway miles in EJ areas (Table 23). Although containing only 3% of the county's roadway miles, 9% of KSI crashes occurred in the most disadvantaged communities (EJ areas with the highest rank). **This indicates a disproportionate amount of traffic safety risk to these communities.**

Category	Roadways		Crashes (2019-2023)*		
	Roadway Centerline Miles	Roadway Centerline Miles (%)	Total Crashes	KSI Crashes	KSI Crashes (%)
Entire County	**3,161**	-	**57,005**	**929**	-
All EJ Areas	**885**	**28%**	**20,129**	**355**	**38%**
Low	441	14%	8,754	124	13%
Medium	236	7%	4,691	74	8%
High	108	3%	2,983	70	8%
Very High	99	3%	3,701	87	9%

Table 23. Crashes in Environmental Justice (EJ) Areas
**This analysis uses non-interstate crashes*

Figure 15. Environmental Justice Areas



HIGH INJURY NETWORK

Purpose

A high-injury network (HIN) provides decision-makers with quantitative information about the specific streets and intersections with the highest concentration of severe traffic crashes that can, therefore, benefit most from the implementation of safety countermeasures. The network is identified based on data analysis of the rate of severe and fatal traffic injuries along road segments and intersections.

While other tools may complement high injury networks in developing a data-driven safety action plan, high injury networks are useful for:

- **Prioritizing Projects**. A high-injury network indicates the major corridors and intersections with both the greatest demonstrated safety need and the greatest opportunities to make progress towards reducing serious injuries and fatalities.
- **Identifying High Impact Grant Application**. A high-injury network indicates the corridors and intersections that are most likely to demonstrate safety need and impact on competitive regional, state, and federal grant applications.
- **Developing Critical Partnerships.** A high-injury network demonstrates where partnerships are most needed, either as part of continuing inter-agency coordination, or as a starting point for collaboration.

Methodology

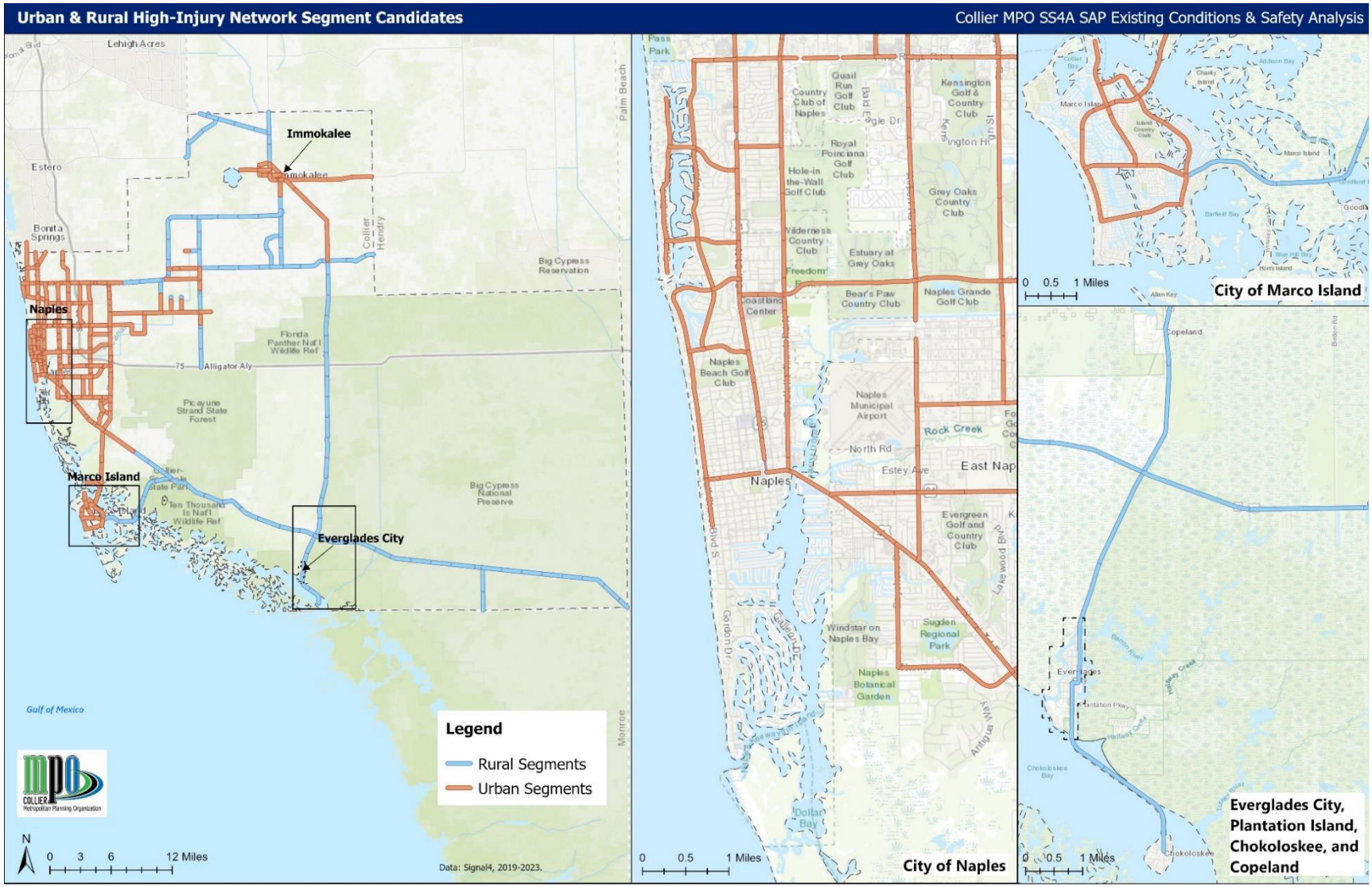
Because of the distinct types of crashes and related safety countermeasures at intersections and street segments, the methodology to determine the HIN evaluated both intersections and street segments separately. The HIN development process included several steps: 1) defining candidate locations, 2) crash assignment, and 3) location evaluation criteria and scoring.

Candidate Intersections and Street Segments

Candidate street segments and intersections follow the same guidelines as those included in the systemic analysis. Therefore, candidate intersections include all non-Interstate roadways found in the FDOT GIS Data Portal and candidate intersections include all intersections where segments meet along with all signal locations identified using Open Streets Map. **Because the high-injury network is a tool to identify high-impact locations for safety improvements, local street networks are omitted from this analysis**. **Interstates have been excluded from the high-injury analysis due to differences in jurisdiction, traffic volumes, and the scope of countermeasures and strategies.**

Due to the size of the county, a separate high-injury network analysis was conducted for both urban and rural segments. FDOT functional classification was used to distinguish urban and rural segments. Any segment with a functional classification >10 was marked urban, while any segment with a functional classification <10 was marked rural. Urban segments were defined as continuous roadway stretches between signalized intersections. In contrast, because rural segments often span much greater distances between intersections, they were divided into subsegments, each with a maximum length of two miles. Due to the low number of rural intersections, a single intersection high-injury network analysis was conducted county-wide. Urban and rural segment designations are outlined in Figure 16.

Figure 16: Candidate HIN Segments (Urban vs. Rural)



Crash Assignment

KSI crashes were assigned to intersections or segments: intersection crashes were defined to include crashes within 150 feet of the intersection, all other crashes were assigned as segment crashes.

Location Evaluation Criteria and Scoring

To evaluate safety risk at candidate intersections and street segments and develop the high-injury network, all intersection and roadway segments were evaluated on **three equally weighted criteria**: Severe Crash Risk Score, Facility Risk Score, and Relative Risk Score. Each criteria provides different, but equally important, information on the risk of severe crashes and potential impact of safety improvements for each candidate intersection and street segment.

- **Severe Crash Risk Score** assesses the number of severe crashes (killed or serious injury crashes, or KSI crashes) that have occurred at each intersection and street segment in Collier County from 2019-2023. This metric prioritizes locations with a higher frequency of KSI crashes.
- **Facility Risk Score** assesses the risk of each intersection and street segment based on their physical features (i.e. # of lanes, AADT, etc.). This metric is a systemic measure, as it prioritizes locations with a higher risk of crashes occurring, based on the crash frequency of streets or intersections of the same typology. Scores for each type are summarized in the High-Risk Features Analysis section of this memorandum.
- **Relative Risk Score** assesses the number of severe crashes that have occurred at each intersection and street segment relative to all other intersections and street segments within the same typology (i.e. # of lanes, AADT, etc.). This metric prioritizes locations that performed poorly relative to locations with similar characteristics.

These three criteria are combined to produce a net HIN score for each segment and intersection. Scores for each assessment criteria are normalized to vary from 0 to 1, with 0 representing the lowest safety risk and 1 representing the highest safety risk. Scores for all criteria are then summed for each intersection and street segment to yield a net score between 0 and 3. Intersections and segments with the highest scores are then included in the HIN.

Results – All Modes

Based on the methodology described above, top-ranked intersections and segments were identified for inclusion in the final high-injury network for intersections, urban segments and rural segments. Two tiers of priority locations were identified for each of these high-injury network layers. The **top 15% (85th-100th percentile)** of scores are identified as the **Tier I High-Injury Network** and **the next 15% (70th-85th percentile)** are identified as **the Tier II High-Injury Network**. The cutoffs between tiers were identified to provide a substantial portion of KSI within each tier, while not adding an excessive number of intersections or roadway mileage. These networks are shown in Figure 17 and Figure 18.

Figure 17: Collier County Roadway Segment High-Injury Network

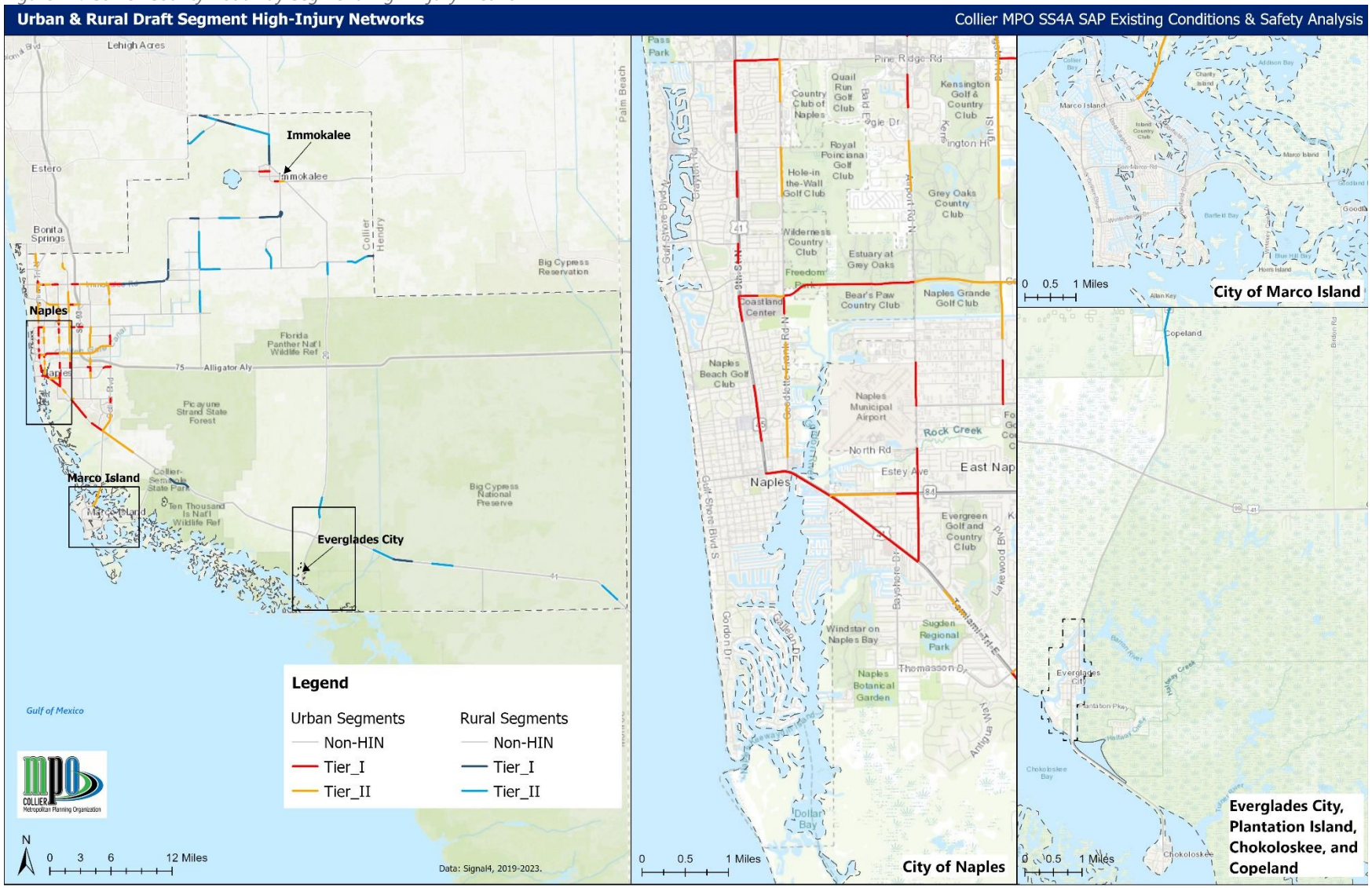
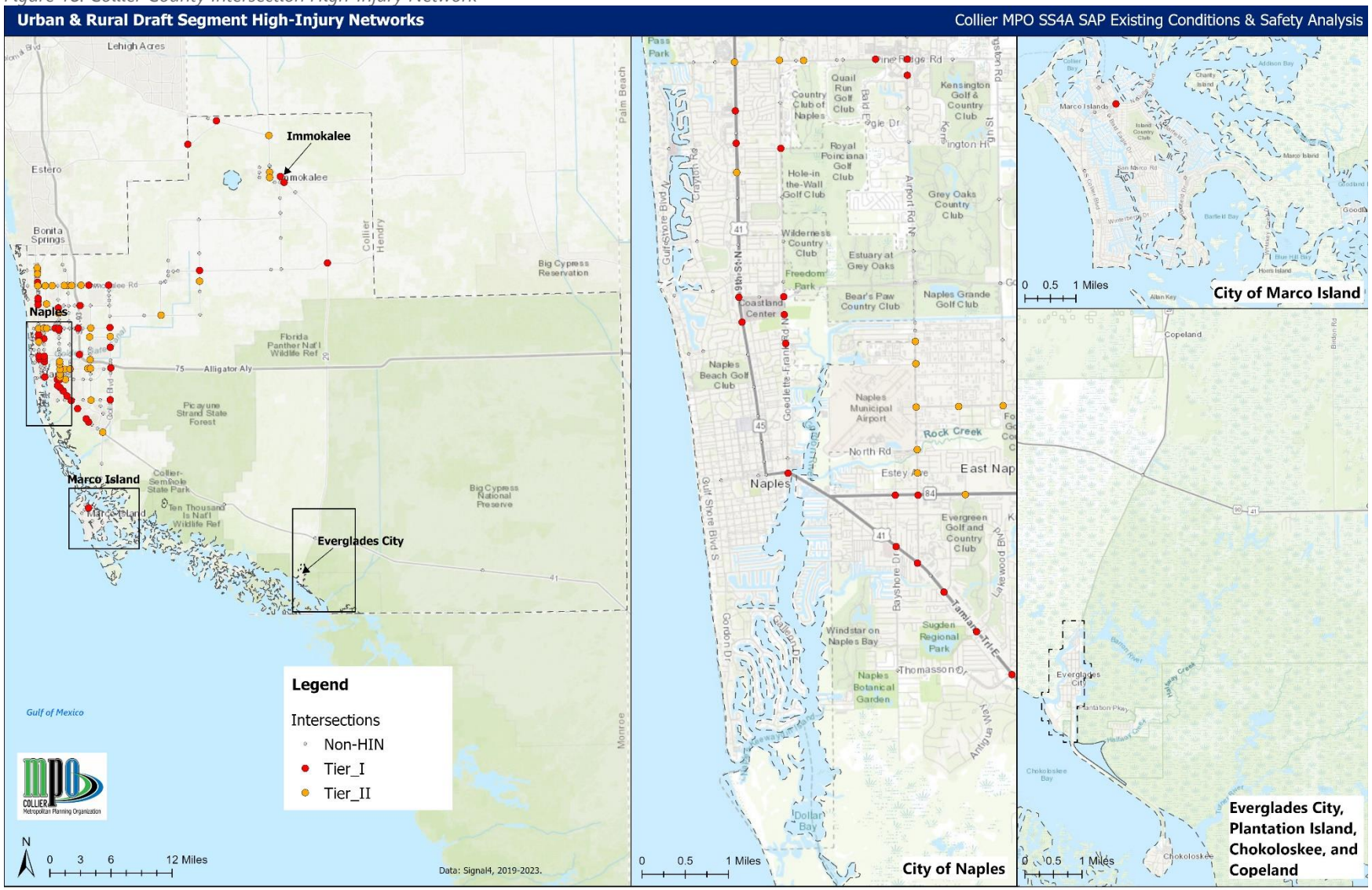


Figure 18: Collier County Intersection High-Injury Network



Collectively, the Tier I and Tier II high-injury network captures 463 KSI crashes (92.6/year) across just over 109 total centerline miles of roadway. This includes 56 miles of urban roadways, 49.1 miles of rural roadways, and 80 intersections, equating to 4.5 miles of roadway[8] (Table 24).

Thus, the HIN captures a substantial portion of KSI within Collier County in just a small portion of roadways and intersections:

- Tier I captures 31% of KSI crashes on just 1.6% of roadway miles
- Tier I & II capture 50% of KSI crashes on just 4.0% of roadway miles.

The share of centerline miles and KSI crashes between the tiers, as well as between urban/rural segments and intersections are further detailed in Table 25. High-Injury Network Share Centerline Mileage and KSI Crashes (Percentage)Table 25.

The Tier I intersections are summarized in Table 26, Tier I urban segments in Table 27, and Tier I rural segments in

[8] Each intersection is counted as 300 feet of centerline miles due to a 150-foot crash assignment buffer.

Table 28. The HIN is shown in Figure 17 and Figure 18 above.

	Total Centerline Miles			Total KSI Crashes		
	Tier I	Tier II	Total	Tier I	Tier II	Total
Urban Segments	20.9	35.1	56.0	143	99	242
Rural Segments	19.3	29.7	49.1	40	29	69
Intersections	2.4	2.1	4.5	109	43	152
HIN Total	***42.7***	***67.0***	***109.6***	***292***	***171***	***463***

Table 24. High-Injury Network Total Centerline Mileage and KSI Crashes (Miles)

	Share of Centerline Miles			Share of KSI Crashes		
	Tier I	Tier II	Total	Tier I	Tier II	Total
Urban Segments	0.8%	1.3%	2.1%	15%	11%	26%
Rural Segments	0.7%	1.1%	1.8%	4%	3%	7%
Intersections	0.1%	0.1%	0.2%	12%	5%	16%
HIN Total	***1.6%***	***2.5%***	***4.0%***	***31%***	***18%***	***50%***

Table 25. High-Injury Network Share Centerline Mileage and KSI Crashes (Percentage)

Table 26. HIN Tier I Intersections

Location	Planning Community	KSI	Rank
Oil Well Rd & FL-29	Royal Fakapalm	7	1
Golden Gate Pkwy & Collier Blvd	Golden Gate	3	2
Neapolitan Way & Tamiami Trl	City of Naples	4	3
Airport Pulling Rd & Pine Ridge Crossing	Central Naples	4	3
FL-82 & Corkscrew Rd	Corkscrew	4	5
Tamiami Trl & Goodlette-Frank Rd	City of Naples	4	6
Tamiami Trl & Airport Pulling Rd	East Naples	4	7
Golden Gate Pkwy & Goodlette-Frank Rd	City of Naples	4	7
Davis Blvd & Airport Pulling Rd	East Naples	4	7
Davis Blvd & Collier Blvd	Royal Fakapalm	3	10
Tamiami Trl & Rattlesnake Hammock Rd	East Naples	3	11
Vanderbilt Beach Rd & Tamiami Trl	North Naples	3	12
New Market Rd W & Charlotte St	Immokalee	2	13
N Collier Blvd & E Elkcam Cir	City of Marco	2	14
Pine Ridge Rd & Collier Blvd	Golden Gate	2	15
Immokalee Rd & Collier Blvd	Urban Estates	2	15
E Main St & New Market Rd E	Immokalee	2	17
Vanderbilt Beach Rd & Oakes Blvd	Urban Estates	2	17
Pine Ridge Rd & Naples Blvd	North Naples	2	19
Golden Gate Pkwy & Tamiami Trl	City of Naples	2	19
Pine Ridge Rd & Airport Pulling Rd	Central Naples	2	19
Rattlesnake Hammock Rd & Collier Blvd	South Naples	2	19
Golden Gate Pkwy & I-75 West Ramp	Central Naples	2	19
Pine Ridge Rd & I-75 West Ramp	Urban Estates	2	19
91st Ave N & Tamiami Trl	North Naples	2	19
Main House Dr & Tamiami Trl	North Naples	2	19
Corkscrew Rd & Wildcat Dr	Corkscrew	2	27
Tamiami Trl & Bayshore Dr	East Naples	2	28
Immokalee Rd & Logan Blvd N	Urban Estates	2	29
Oil Well Rd & Everglades Blvd N	Rural Estates	2	29
Solana Rd & Goodlette-Frank Rd	Central Naples	2	29
Tamiami Trl & Southwest Blvd	South Naples	2	29
Tamiami Trl & Broward St	South Naples	2	29
Tamiami Trl & Saint Andrews Blvd	Marco	2	29
Tamiami Trl & Lakewood Blvd	East Naples	2	29
Tamiami Trl & & Palm Dr	East Naples	2	29

Davis Blvd & Shadowlawn Dr	East Naples	2	29
13th Ave N & Goodlette-Frank Rd N	City of Naples	2	29
Fleischmann Blvd & Tamiami Trl	City of Naples	2	29
Fleischmann Blvd & Goodlette-Frank Rd N	City of Naples	2	29
Old Trail Dr & Tamiami Trl	City of Naples	2	29
Old Groves Rd & Airport Pulling Rd	North Naples	2	29
Pelican Bay Blvd & Tamiami Trl	North Naples	2	29

Table 27. HIN Tier I Urban Roadway Segments

Segment Name	Segment Start	Segment End	Planning Community	Miles	KSI	Rank
Pine Ridge Rd	I-75 West Ramp	I-75 East Ramp	Urban Estates	0.13	3	1
Tamiami Trl	Bayshore Dr	Airport Pulling Rd	East Naples	0.25	5	2
Airport Pulling Rd	Cougar Dr	Naples Blvd	North Naples	0.18	3	3
W Main St	S 9th St	Immokalee Rd	Immokalee	0.45	7	4
Airport Pulling Rd	Estey Ave	North Rd	East Naples	0.21	3	5
Tamiami Trl	4th Ave N	7th Ave N	City of Naples	0.28	4	6
Collier Blvd	Golden Gate Pkwy	Green Blvd	Golden Gate	0.99	13	7
Tamiami Trl	Barefoot Williams Rd	Lely Resort Blvd	South Naples	0.63	7	8
Pine Ridge Rd	I-75 East Ramp	Napa Blvd	Urban Estates	0.19	2	9
5th Ave S	9th St S	Goodlette-Frank Rd	City of Naples	0.20	2	10
Tamiami Trl	Anchor Rode Dr	Park Shore Dr	City of Naples	0.24	2	11
Tamiami Trl	Neapolitan Way	Pine Ridge Rd	Central Naples	0.51	4	12
Pine Ridge Rd	Livingston Rd	Whippoorwill Dr	Urban Estates	0.43	3	13
Tamiami Trl	Immokalee Rd	Main House Dr	North Naples	0.29	2	14
Immokalee Rd	Colliers Reserve Dr	Goodlette-Frank Rd	North Naples	0.29	2	15
Airport Pulling Rd	Naples Blvd	J and C Blvd	North Naples	0.29	2	16

Goodlette-Frank Rd	Fleischmann Blvd	Golden Gate Pkwy	City of Naples	0.15	1	17
Pine Ridge Rd	Tamiami Trl	Goodlette-Frank Rd	North Naples	0.46	3	18
Immokalee Rd	Juliet Blvd	Tarpon Bay Blvd	Urban Estates	0.57	4	19
Santa Barbara Blvd	Santa Barbara Boulevard/Calusa Park Elementary School	Radio Rd	Golden Gate	0.48	3	20
Collier Blvd	Lely Cultural Pkwy	Rattlesnake Hammock Rd	South Naples	0.32	2	21
Tamiami Trl	Goodlette-Frank Rd	Bayshore Dr	East Naples	1.46	9	22
Airport Pulling Rd	Clubhouse Dr	Airport Pulling Rd/Pine Ridge Crossings	Central Naples	0.32	2	23
Tamiami Trl	26th Ave N	Harbour Dr	City of Naples	0.17	1	24
Collier Blvd	Founders Square Dr	Immokalee Rd	Urban Estates	0.15	1	25
Tamiami Trl	Lely Resort Blvd	Collier Blvd	South Naples	0.58	3	26
Immokalee Rd	Collier Blvd	Montserrat Ln	Rural Estates	1.20	7	27
Airport Pulling Rd	Davis Blvd	Estey Ave	East Naples	0.20	1	28
Tamiami Trl	Morningside Dr	Neapolitan Way	City of Naples	0.20	1	29
Davis Blvd	Shadowlawn Dr	Airport Pulling Rd	East Naples	0.20	1	30
Golden Gate Pkwy	Tamiami Trl	Golden Gate Pkwy/Naples High School	City of Naples	0.18	1	31
Tamiami Trl	Saint Andrews Blvd	Broward St	South Naples	1.25	6	32
Airport Pulling Rd	Radio Rd	Enterprise Ave	Central Naples	0.44	2	33

Lake Trafford Rd	Carson Rd	N 15th St	Immokalee	0.95	6	34
Davis Blvd	Radio Rd	Collier Blvd	South Naples	0.67	3	35
Livingston Rd	Radio Rd	Enterprise Ave	Central Naples	0.45	2	36
Tamiami Trl	Fleischmann Blvd	Golden Gate Pkwy	City of Naples	0.23	1	37
Tamiami Trl	Rattlesnake Hammock Rd	Saint Andrews Blvd	South Naples	0.95	4	38
Immokalee Rd	Palm River Blvd	Airport Pulling Rd	North Naples	0.49	2	39
Airport Pulling Rd	Tamiami Trl	Davis Blvd	East Naples	0.73	3	40
Tamiami Trl	Central Ave	4th Ave N	City of Naples	0.25	1	41
Golden Gate Pkwy	Goodlette-Frank Rd	Airport Pulling Rd	City of Naples	1.50	6	42
Radio Rd	Countryside Dr	Santa Barbara Blvd	Golden Gate	0.20	1	43
Vanderbilt Beach Rd	Livingston Rd	Wilshire Lakes Blvd	Urban Estates	0.53	2	44

Table 28. HIN Tier I Rural Roadway Segments

Segment Name	Segment Start	Segment End	Planning Community	Miles	KSI	Rank
Oil Well Rd	3/4 Mi West of County Line Rd	County Line Rd	Corkscrew	0.68	3	1
N 15th St	New Market Rd	Johnson Rd	Corkscrew	1.97	8	2
Immokalee Rd	Orange Tree Blvd	Oil Well Rd	Rural Estates	0.36	1	3
Immokalee Rd	Majestic Trails Blvd	Wilson Blvd N	Rural Estates	1.84	4	4
Immokalee Rd	Oil Well Rd	41st Ave NE	Rural Estates	1.02	3	5
Immokalee Rd	Randall Blvd	Orange Tree Blvd	Rural Estates	0.60	1	6
Immokalee Rd	1/4 Mi east of Redhawk Ln	Everglade Blvd N	Rural Estates	0.80	2	7
FL-82	Hendry County Line	S Church Rd	Corkscrew	0.82	2	8
Immokalee Rd	Montserrat Ln	Majestic Trails Blvd	Rural Estates	2.00	2	9
Immokalee Rd	1/2 Mi east of 25675 Immokalee Rd	Camp Keais Rd	Corkscrew	2.34	4	10
Camp Keais Rd	Silver Strand III service Rd	Immokalee Rd	Corkscrew	0.61	1	11
Tamiami Trl	San Marco Rd	100ft West of 20610 Tamiami Trl	Royal Fakapalm	1.97	3	12
FL-82	Corkscrew Rd	1/3 Mi west of Gator Slough Ln	Corkscrew	1.97	3	13
Tamiami Trl	Burns Lake Road		Big Cypress	2.00	3	14
Immokalee Rd	Wilson Blvd N	Randall Blvd	Rural Estates	0.35	0	15

Results – Bicycle and Pedestrian

In addition to the standard high-injury network, a secondary high-injury network was developed examining top intersections and segments for bicycle and pedestrian KSI crashes. Two tiers of priority locations were identified for each of these high-injury network layers. Cumulatively, the **Tier I High-Injury Network** and **Tier II High-Injury Network** account for the **top 20% (80th-100th percentile)** of scores. Cutoffs between tiers were identified to provide a substantial portion of KSI within each tier, while not adding an excessive number of intersections or roadway mileage. These networks are shown in Figure 19 and Figure 20 on the following page.

The Bicycle and Pedestrian Tier I and Tier II high-injury network captures 97 bicycle and pedestrian KSI crashes (19.4/year) across just over 103 total centerline miles of roadway. This includes 100 miles of roadways and 48 intersections, equating to 2.7 miles of roadway[9] (Table 29).

The resulting HIN captures significant share of bicycle and pedestrian KSI crashes in Collier County across a small portion of roadways and intersections.

- Tier I captures 30% of bicycle and pedestrian KSI crashes on just 0.6% of roadway miles
- Tier I & II capture 46% of bicycle and pedestrian KSI crashes on just 3.8% of roadway miles.

The share of centerline miles and bicycle and pedestrian KSI crashes between the tiers, as well as between segments and intersections are further detailed in Table 30. The Tier I intersections and segments are summarized in Table 31 and Table 32 .

	Total Centerline Miles			Total Bicycle & Pedestrian KSI Crashes		
	Tier I	Tier II	Total	Tier I	Tier II	Total
Segments	15.1	85.6	100.8	42	34	76
Intersections	1.1	1.6	2.7	21	0	21
HIN Total	***32.9***	***70.5***	***103.5***	***63***	***34***	***97***

Table 29. Bicycle & Pedestrian High-Injury Network Total Centerline Mileage and Bicycle & Pedestrian KSI Crashes (Mi.)

	Share of Centerline Miles			Share of Bicycle & Pedestrian KSI Crashes		
	Tier I	Tier II	Total	Tier I	Tier II	Total
Segments	1.56%	3.14%	3.70%	20%	16%	36%
Intersections	0.04%	0.06%	0.10%	10%	0%	10%
HIN Total	***0.60%***	***3.20%***	***3.80%***	***30%***	***16%***	***46%***

Table 30. Bicycle & Pedestrian High-Injury Network Share Centerline Mileage and Bicycle & Pedestrian KSI Crashes (Mi.)

[9] Each intersection is counted as 300 feet of centerline miles due to a 150-foot crash assignment buffer.

Figure 19. Collier County Bicycle and Pedestrian Segment High-Injury Network

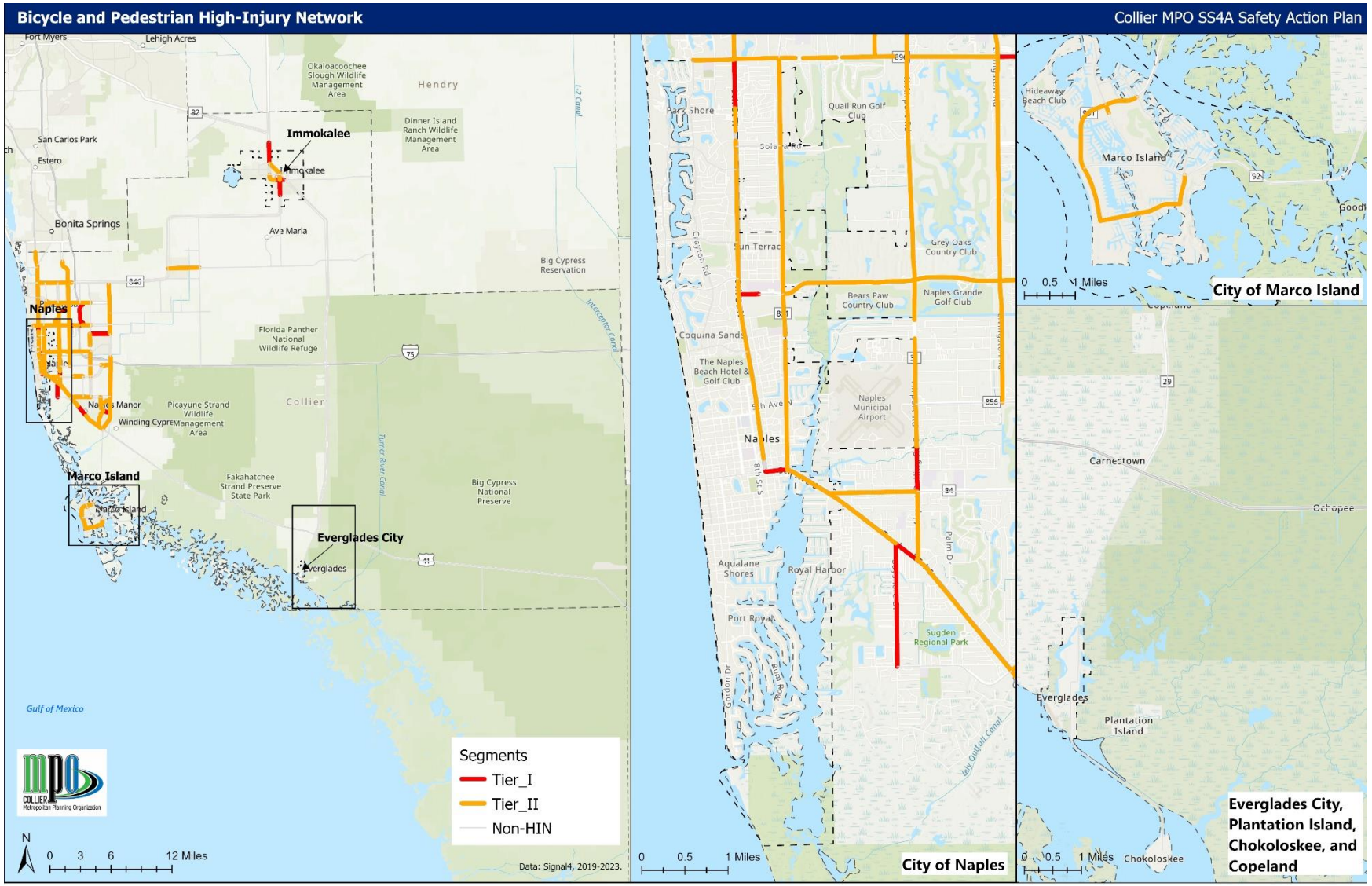


Figure 20. Collier County Bicycle and Pedestrian Segment High-Injury Network

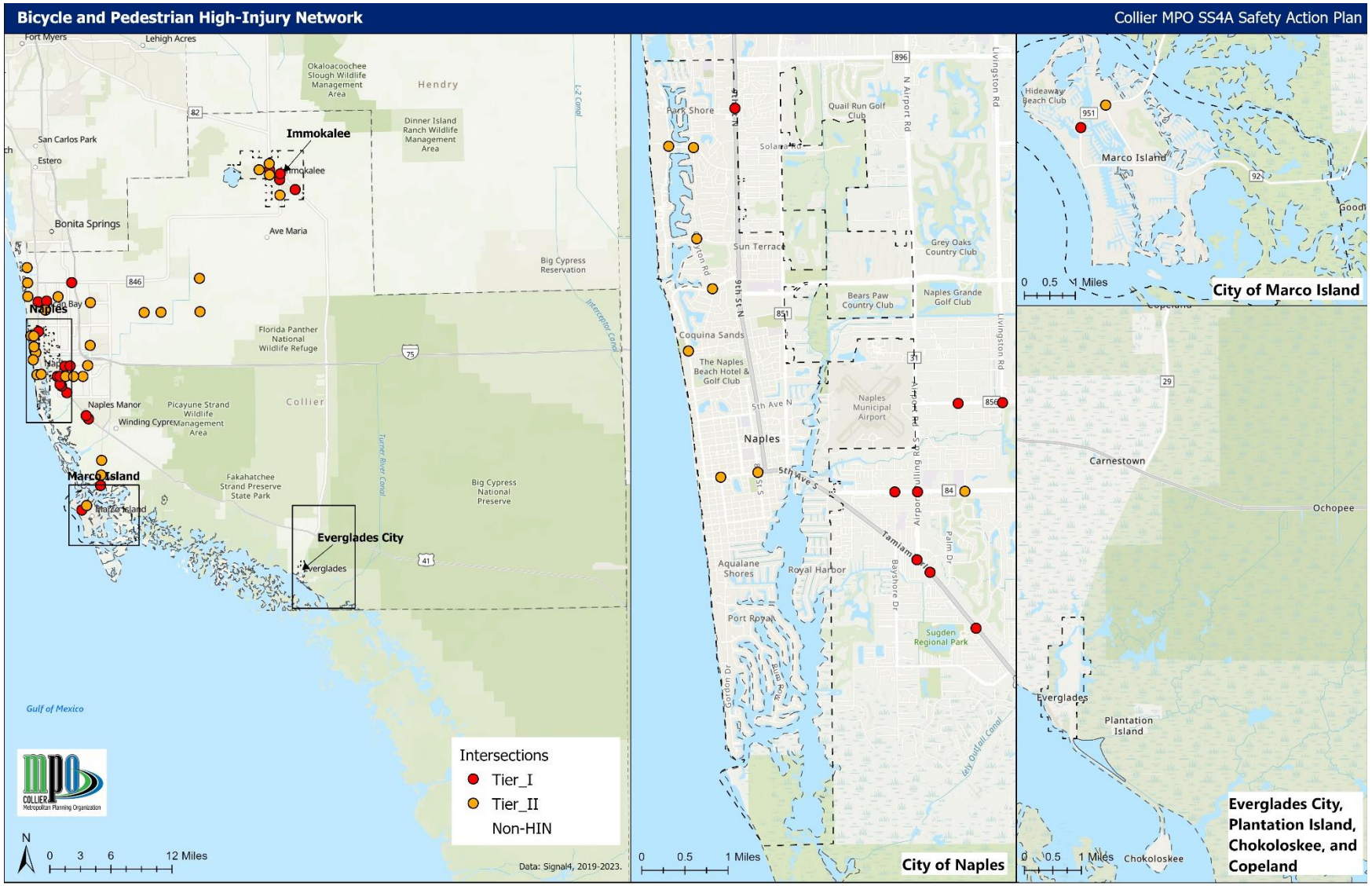


Table 31. Bicycle and Pedestrian HIN Tier I Intersections

Location	Planning Community	KSI	Rank
Pulling Rd & Tamiami Trl	East Naples	2	1
Pelican Bay Blvd & Tamiami Trl	North Naples	2	2
Radio Rd & Livingston Rd	East Naples	1	3
Kendall Dr & N Collier Blvd	City of Marco	1	4
Vanderbilt Beach Rd & N Goodlette Frank Rd	North Naples	1	5
Davis Blvd & Airport-Pulling Rd S	East Naples	1	6
Immokalee Rd & Strand Blvd	Urban Estates	1	7
Tamiami Trl & Whistlers Cove Blvd	South Naples	1	8
Tamiami Trl & Broward St	South Naples	1	9
Tamiami Trl & Lakewood Blvd	East Naples	1	10
Tamiami Trl & Espinal Blvd	East Naples	1	11
Davis Blvd & Shadowlawn Dr	East Naples	1	12
Neapolitan Way & Tamiami Trl	City of Naples	1	13
New Market Rd W & Charlotte St	Immokalee	1	14
State Road 29 S & Farm Worker Way	Immokalee	1	15
Lake Trafford Rd & State Road 29 N	Immokalee	1	16
Main St & 1st St	Immokalee	1	17
Isle of Capri Blvd & Collier Blvd	Royal Fakapalm	1	18
Radio Rd & Industrial Blvd	East Naples	1	19

Table 32. Bicycle and Pedestrian HIN Tier I Roadway Segments

Segment Name	Segment Start	Segment End	Planning Community	Miles	Bicycle & Pedestrian KSI	Rank
Tamiami Trl	Bayshore Dr	Airport-Pulling Rd S	East Naples	0.25	5	1
W Main St	N 9th St	N 1st St	Immokalee	0.45	6	2
Airport-Pulling Rd S	Estey Ave	North Rd	East Naples	0.21	2	3
Pine Ridge Rd	I-75 West Ramp	I-75 East Ramp	Urban Estates	0.13	1	4
E Main St	N 1st St	New Market Rd E	Immokalee	0.35	1	5
S 1st St	Stockade Rd	Main St	Immokalee	1.47	4	6
Pine Ridge Rd	I-75 E Onramp	Napa Blvd	Urban Estates	0.19	1	7
5th Ave S	9th St S	S Goodlette Frank Rd	City of Naples	0.20	1	8
Airport-Pulling Rd S	Davis Blvd	Estey Ave	East Naples	0.20	1	9
Bayshore Dr	Thomasson Dr	Tamiani Trl	East Naples	1.37	3	10
Pine Ridge Rd	Livingston Rd	Whippoorwill Ln	Urban Estates	0.43	2	11
State Road 29 N	New Market Rd W	Johnson Rd	Corkscrew	1.97	3	12
Grand Lely Dr	Lely Resort Blvd	Collier Blvd	South Naples	0.67	1	13
Tamiami Trl	Granada Blvd	Pine Ridge Rd	Central Naples	0.51	2	14
Orange Bossom Dr	N Airport Rd	Livingston Rd	North Naples	0.96	1	15

Green Blvd	Logan Blvd S	Collier Blvd	Golden Gate	1.95	2	16
Golden Gate Pkwy	Tamiami Trl	Tamiami Trl	City of Naples	0.18	1	17
Tamiami Trl	St Andrews Blvd	Broward St	South Naples	1.25	4	18
Vineyards Blvd	Pine Ridge Rd	Vanderbilt Beach Rd	Urban Estates	2.42	1	19