

Chapter

A2

Appendix 2 - Safety Analysis

To: Mauricio Hernandez and Laura Byer, Alta Planning + Design
From: Adam Dankberg, P.E. and Darryl dePencier, AICP, GISP, RSP₁, Kimley-Horn
Date: February 9, 2022
Re: Bicycle and Pedestrian Collision Analysis

Introduction

Located in southern San Francisco Bay Area, Santa Clara County (the County) is home to over 1.7 million people, 92% of which live in one of 15 incorporated cities within the County.¹ The County is a major employment center for the San Francisco Bay Area, providing over 25 percent of the jobs in the region.² With a rapidly growing population and large employment centers, there is a need to provide a safe and efficient roadway network that meets the travel demands of various users. This document provides a summary of bicycle and pedestrian safety in the County by identifying high-collision locations and trends that involve active transportation users.

Methodology

To understand where high incidences of bicycle and pedestrian collisions occur in the County, an analysis of registered collisions throughout the County's roadways was conducted for the six-year period between January 2015 and December 2020. This analysis utilized data derived from the Crossroads Software's Traffic Collision Database. During this time period there were 354 collisions within the County. A network screening analysis was also performed on the data to identify:

- Collision hot spots at intersections and along roadway segments
- Locations of fatal collisions
- Pedestrian- and bicycle-involved collision locations

Collision hot spots were categorized into 1) intersection collisions and 2) roadway segments collisions. This was determined based on the location and distance where a collision occurred in relation to an intersection. Collisions occurring within 250 feet of an intersection were classified as intersection collisions. Collisions occurring more than 250 feet away from an intersection were classified as a roadway segment collisions. Geographic data related to each collision included information including location, severity of the injury, collision type, weather and surface conditions, collision factors (including the party at fault), and sobriety information. This information is further analyzed in the memo.

¹ County of Santa Clara, <https://www.sccgov.org/sites/scc/Pages/About-the-County.aspx>

² Ibid.

The document has been organized into three sections:

- **Section 1 – Summary of Collisions** provides an account of all the collisions that occurred in the unincorporated areas of the County. Categories such as collision fault, type, time, and injury severity are discussed in detail.
- **Section 2 – Pedestrian Collisions** focuses on collisions involving pedestrians and identifies trends from those collisions.
- **Section 3 – Bicycle Collisions** focuses on collisions involving bicyclists and identifies trends from those collisions.

Roadway Context

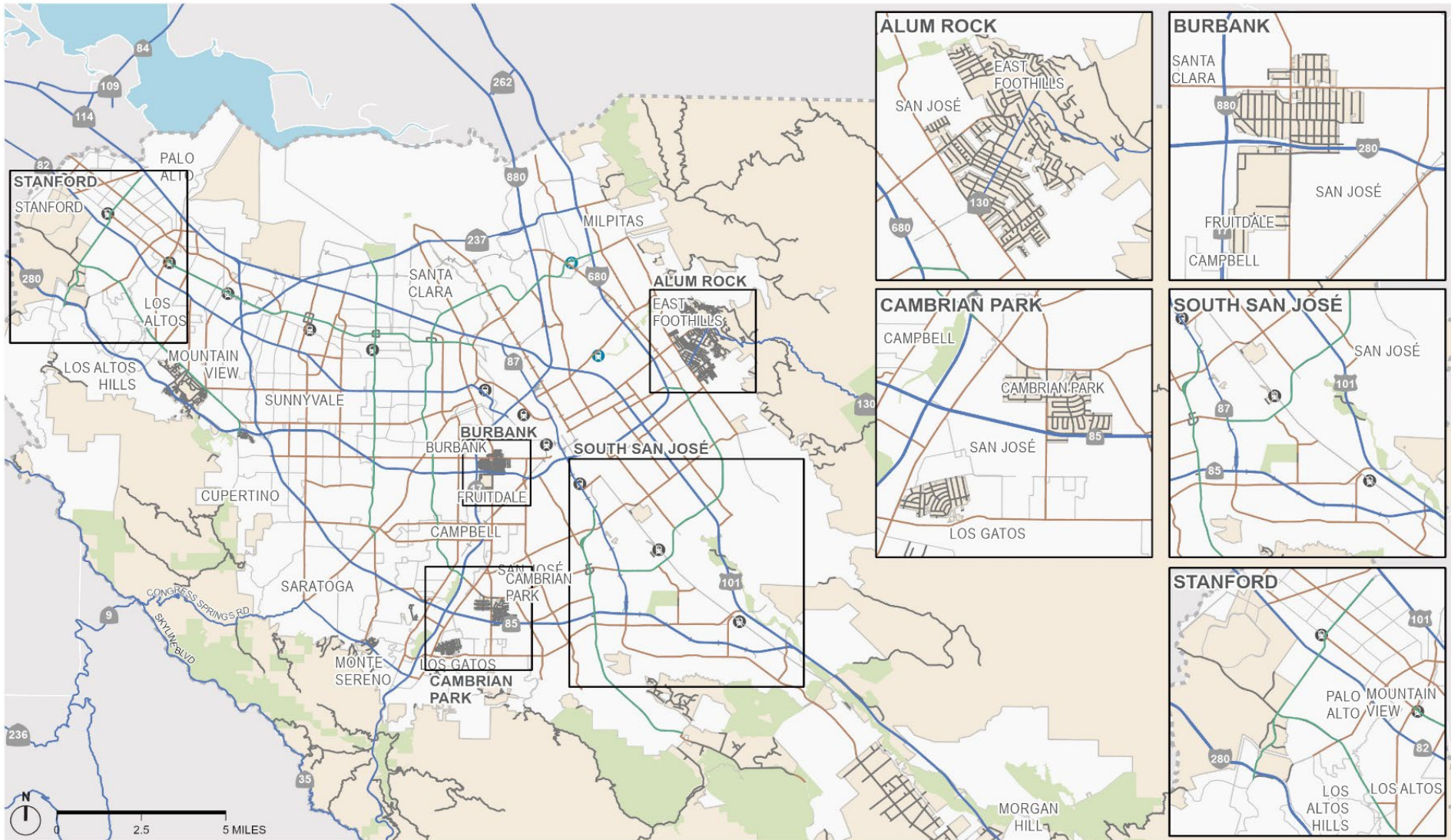
The County operates a network of expressways, arterial, collector, and local roadways through urbanized and rural areas. The expressway system provides several regional connections to unincorporated areas of the County, closing gaps in the regional freeway system, while also providing local access. The expressway system is operated by the County but extends throughout incorporated areas of the County. Other roadways operated by the County are located in unincorporated areas and include a variety of arterials, collectors, and local roadways that provide access to residential and commercial areas. **Figure 1** and **Figure 2** show the network of county-controlled roadways and highlights seven unincorporated parts of the County—Stanford, Cambrian Park, Burbank, Alum Rock, South San José, the unincorporated Morgan Hill Area, and the unincorporated San Martin Area. These seven unincorporated areas were found to have the highest concentration of collisions on County controlled roadways.

Summary Findings and Emerging Patterns

Overall, motorists were at fault for over half (54%) of all collisions involving pedestrians and bicyclists. Over one in five collisions (22%) resulted in either a serious or fatal injury. The data showed that weekends experienced a significantly lower number of collisions for both bicyclists and pedestrians compared to weekdays. Further, evening hours (4-8 pm) registered the highest number of collisions. The number of collisions were much higher in the first year of the data period (2015) and generally constant between 2016 and 2019. The number of collisions dropped significantly in 2020, likely due to effects of the COVID pandemic.

The findings in this memorandum aim to guide the process of identifying transportation safety improvements and countermeasures for collisions involving people walking and biking. The analyses in this memorandum identify collision types, relate primary collision factors, and map the most frequent bicycle and pedestrian involved collision locations. The analyses also provide information about roadway characteristics and user behaviors that contribute to collisions between motor vehicles and active transportation users.

The next step of the collision analysis process will be to evaluate safety benefits of proposed improvements through a combination of NCHRP 552's forecasting methodologies and the application of crash modification factors (CMF) included in the Local Road Safety Manual and FHWA's CMF Clearinghouse. This step will include a cost-benefit analysis along with benefits to public health, air quality, and potential reductions in traffic congestion.



ROADWAYS

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

Source: Santa Clara County, VTA, US Census, Esri, July 2021.

Kimley Horn

ROADWAY TYPE

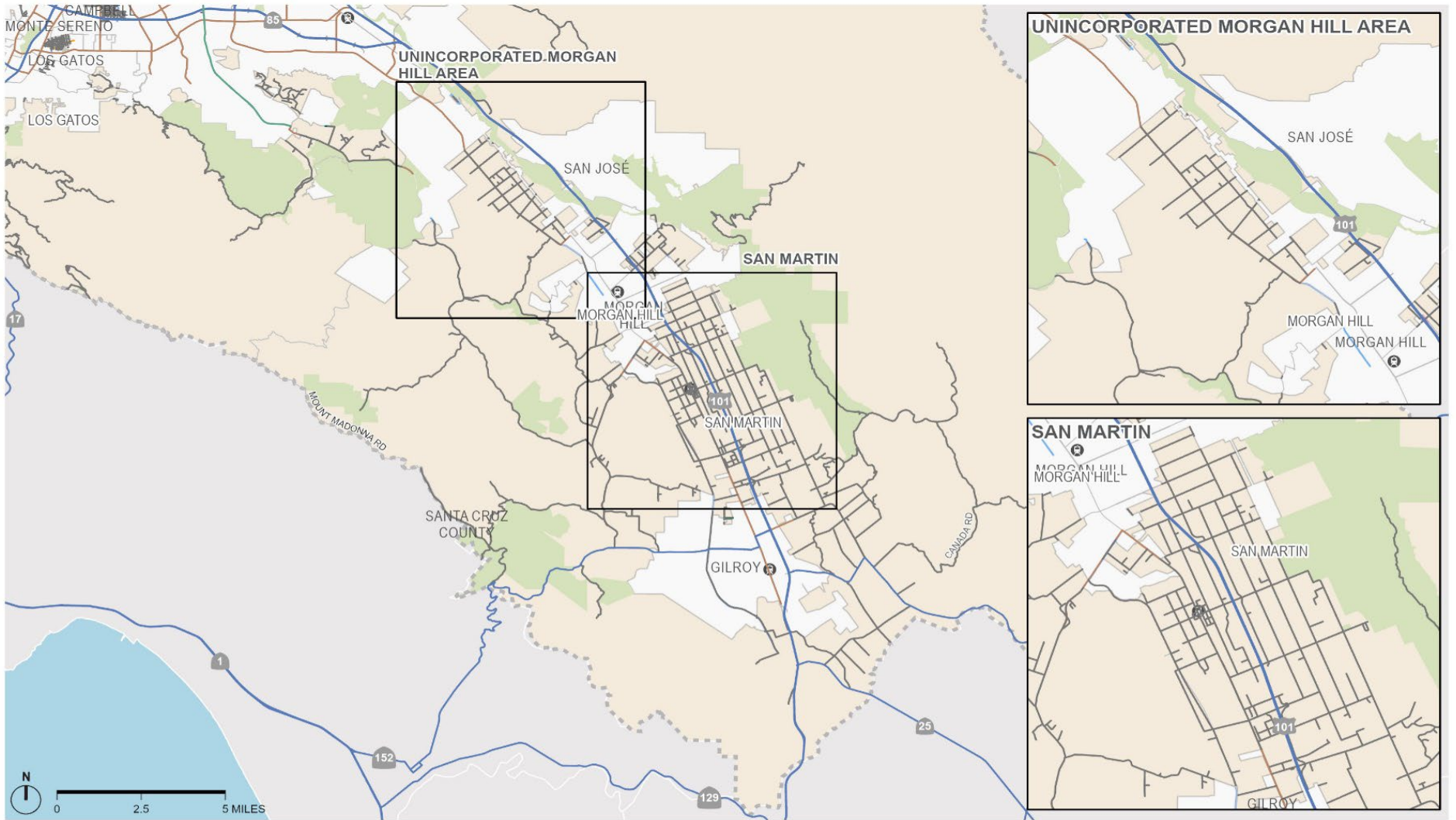
- County Controlled Roadway
- County Expressway
- State Highway
- Arterial Roadway
- Local Roadway

FEATURES

- BART Station
- Caltrain Station
- Park
- City Boundary
- Unincorporated Area
- Santa Clara County



Figure 1. County controlled roadway network



ROADWAYS

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

Source: Santa Clara County, VTA, US Census, Esri.
 Kimley Horn

ROADWAY TYPE

- County Controlled Roadway
- County Expressway
- State Highway
- Arterial Roadway
- Local Roadway

FEATURES

- BART Station
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Figure 2. County controlled roadway network

Section 1 – Summary of Collisions

This section provides an account of all the collisions that occurred in the unincorporated areas of the County. Categories such as time period, party at fault, severity, primary collision factor, external conditions, and location are discussed in detail.

Time Period

The bicycle and pedestrian collisions that occurred on County roadways were analyzed based on the year, month, day of week, and hour that they occurred. **Figure 3** shows the number of bicycle and pedestrian collisions that occurred each year between 2015 and 2020. While the overall trend of the number of collisions by year shows a decline, that is primarily associated with a large number of collisions in 2015, the first year of the dataset and a small number of collisions the last year of the dataset (2020), which may have been correlated to changes in travel behavior associated with the COVID pandemic. Therefore, a conclusion about overall collision trends cannot be made.

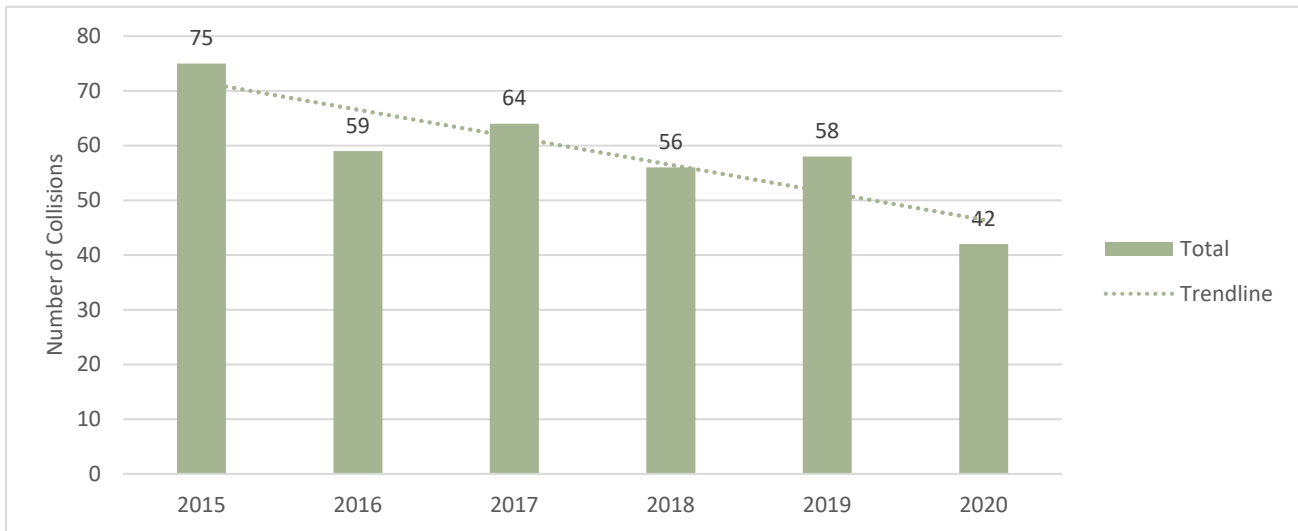


Figure 3. Collisions by year

Figure 4 shows the total number of bicycle and pedestrian collisions by month. The months of July and September had the greatest number of collisions, with 37 and 38, respectively.

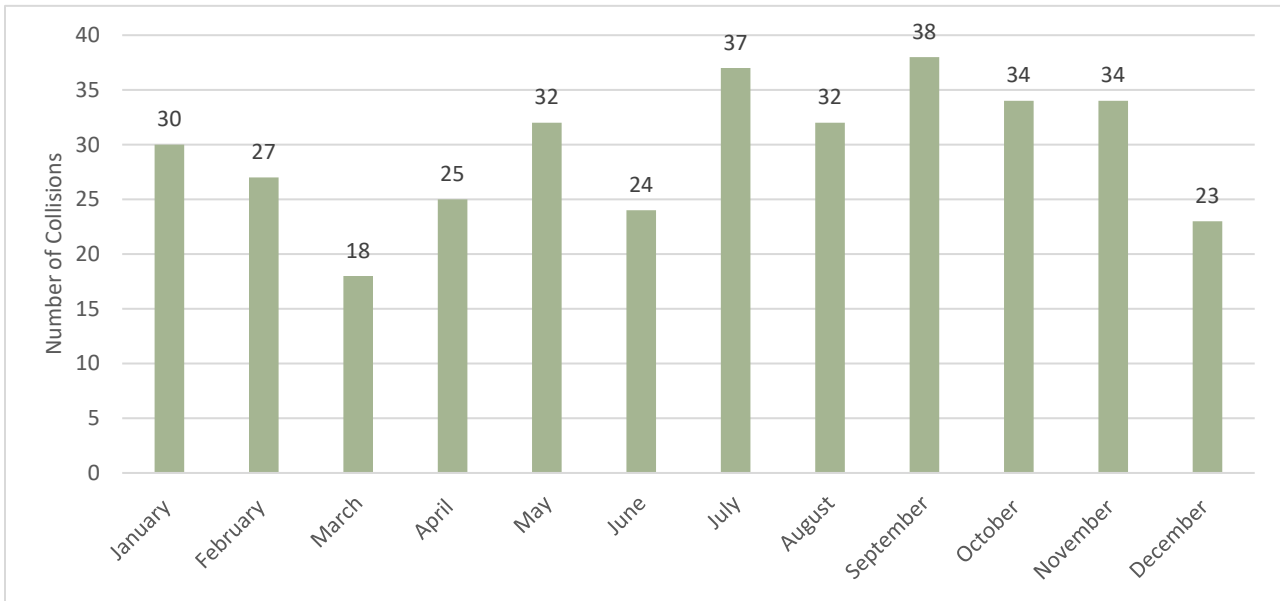


Figure 4. Collisions by month

Figure 5 shows the number of collisions by day of the week. Weekends have a lower number of collisions (average 39) in comparison to weekdays which experience an average of 55 collisions per weekday.

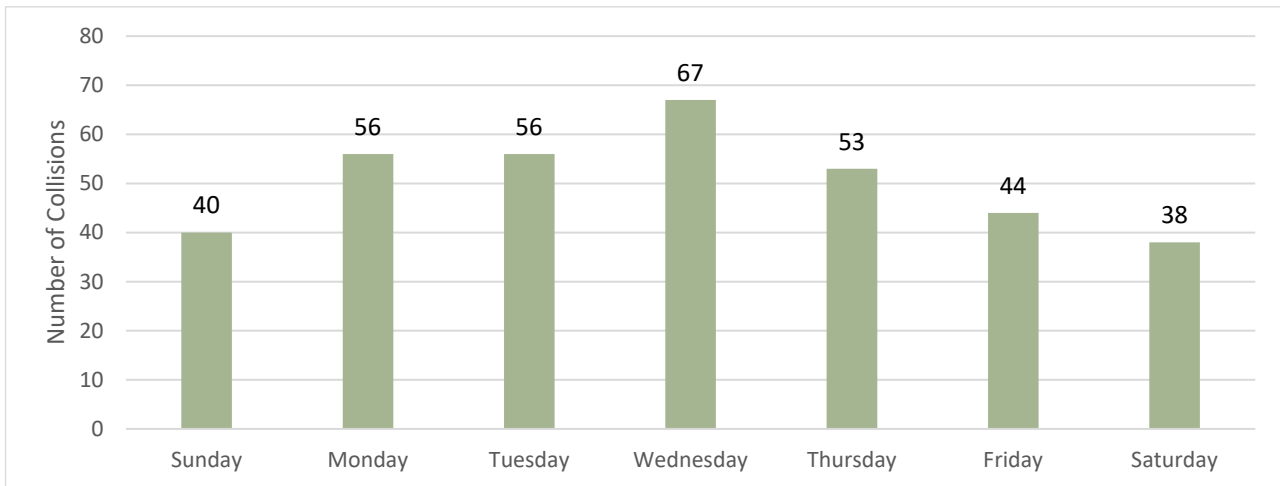


Figure 5. Collisions by day of the week

As can be seen in **Figure 6**, the highest number of collisions occur during the afternoon peak period and extending into the evening (4-8pm). This is consistent with trends throughout the Bay Area and United States. **Figure 7** and **Figure 8** include the location of all collisions registered throughout the County on County-controlled roadways.

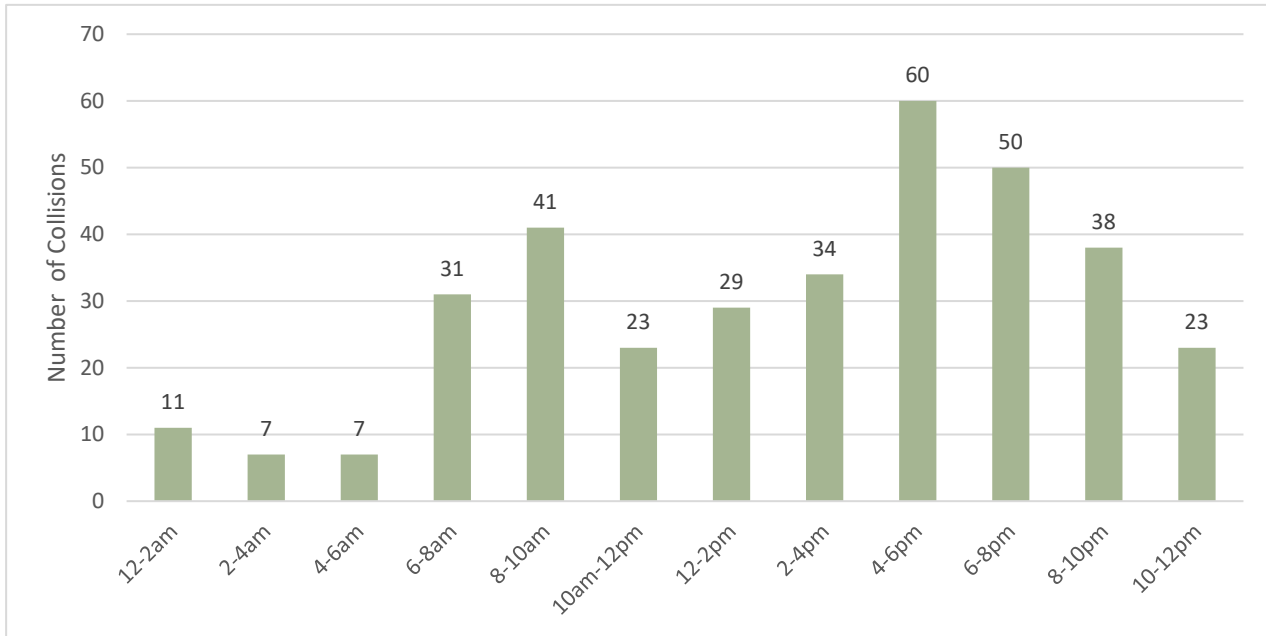
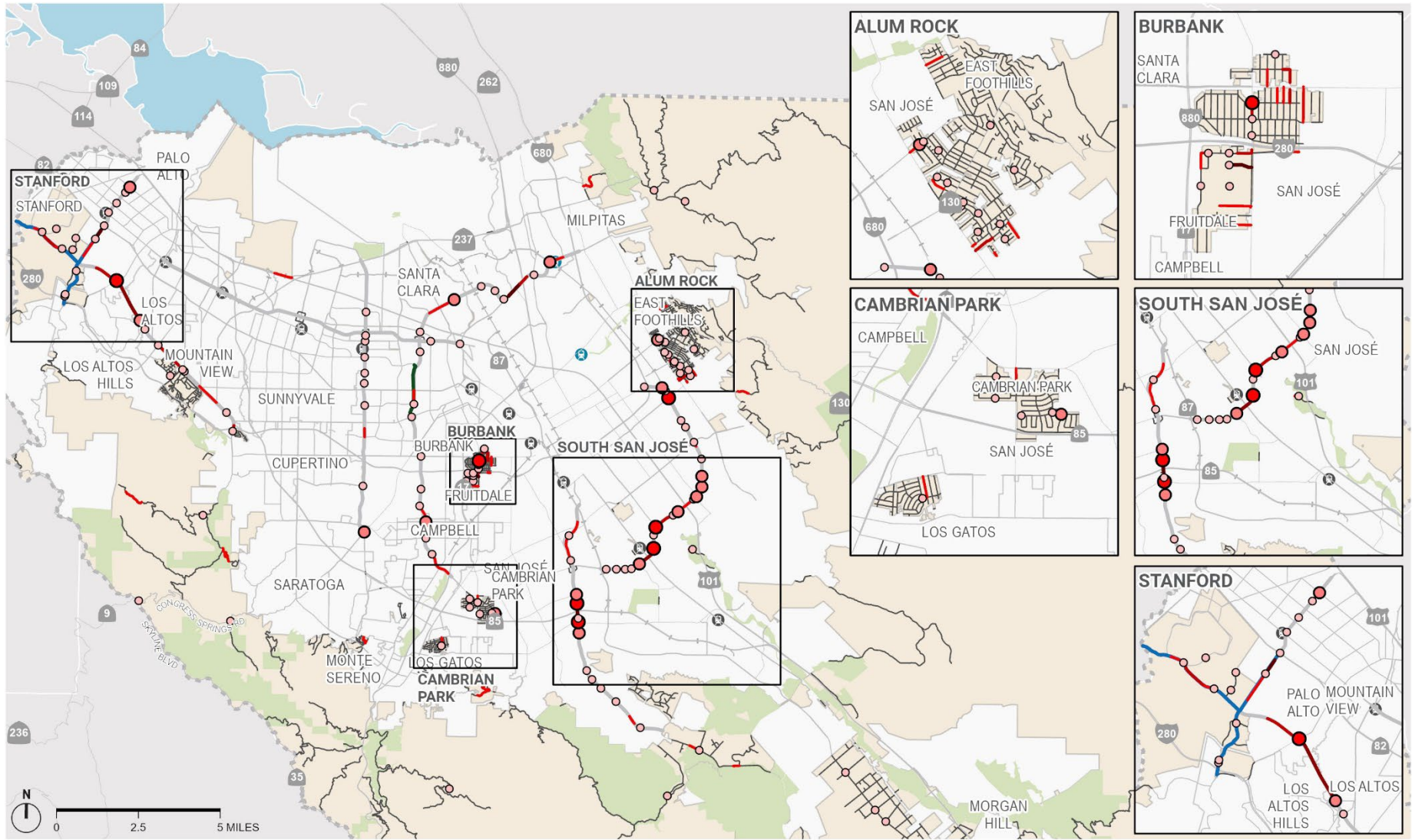


Figure 6. Collisions by time period



ALL PEDESTRIAN AND BICYCLE COLLISIONS

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

Source: Santa Clara County, VTA, US Census, Esri, July 2021.

Kimley»Horn

EXISTING BIKWAYS (COUNTY CONTROLLED)

- Class I: Shared-Use Path
- Class II: Bicycle Lane
- Class III: Bicycle Route
- Class IV: Separated Bikeway

FEATURES

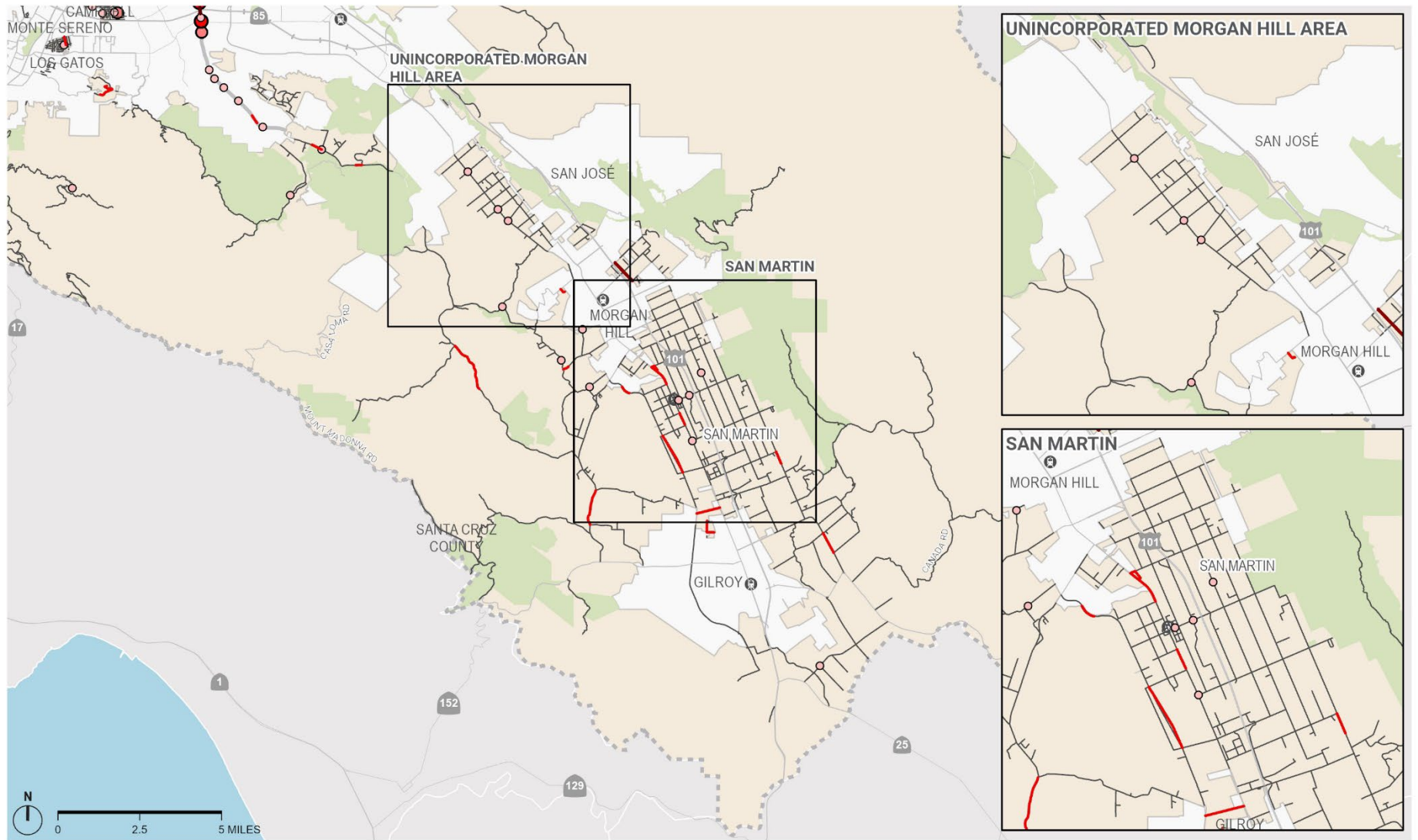
- BART Station
- Caltrain Station
- Park
- City Boundary
- Unincorporated Area
- Santa Clara County

ALL BICYCLE AND PEDESTRIAN COLLISIONS (NUMBER OF INTERSECTION & ROADWAY COLLISIONS)

- | Intersection Collisions | Roadway Collisions |
|-------------------------|--------------------|
| 1 - 2 | 1 |
| 3 - 5 | 2 |
| 6 - 12 | 3 |
| | 4 |



Figure 7. Bicycle and pedestrian collisions (2015-2020)



ALL PEDESTRIAN AND BICYCLE COLLISIONS

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

Source: Santa Clara County, VTA, US Census, Esri, July 2021.

EXISTING BIKEWAYS (COUNTY CONTROLLED)

- Class I: Shared-Use Path
- Class II: Bicycle Lane
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- Class IV: Separated Bikeway

FEATURES

- BART Station
- Caltrain Station
- Park
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ALL BICYCLE AND PEDESTRIAN COLLISIONS (NUMBER OF INTERSECTION & ROADWAY COLLISIONS)

- | Intersection Collisions | Roadway Collisions |
|-------------------------|--------------------|
| 1 - 2 | 1 |
| 3 - 5 | 2 |
| 6 - 12 | 3 |
| | 4 |



Figure 8. Bicycle and pedestrian collisions (2015-2020)

Party at Fault

Figure 9 shows the party at fault for both bicycle and pedestrian involved collisions. Motorists accounted for more than half (54%) of all collisions involving people walking or biking.

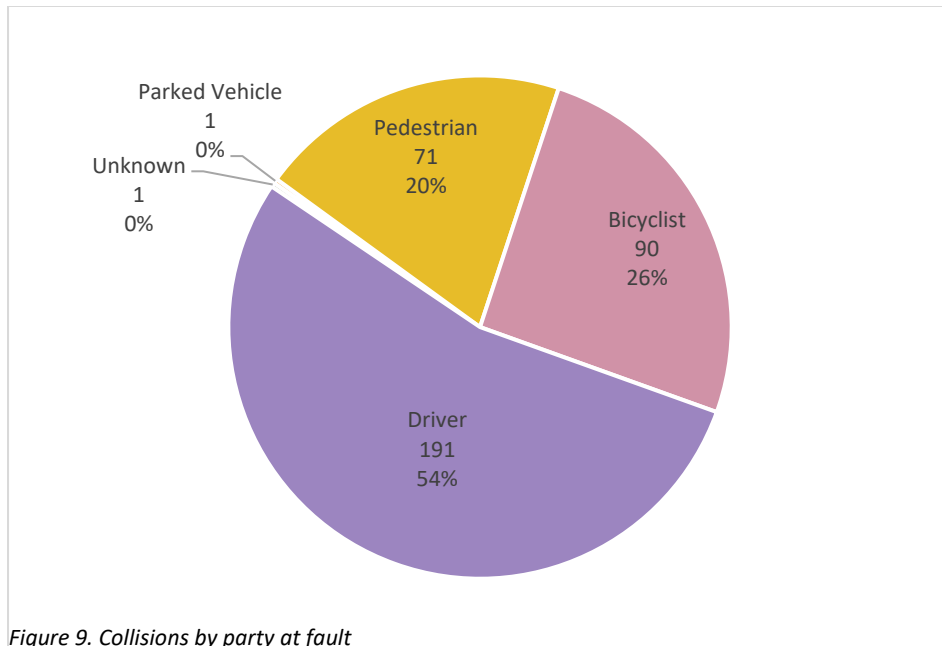


Figure 9. Collisions by party at fault

Severity

Figure 10 provides information about the severity of collisions. As noted, a total of 25 collisions causing fatalities (7% of all collisions) and 55 collisions causing severe injuries (16% of all collisions) were registered during the six-year period.

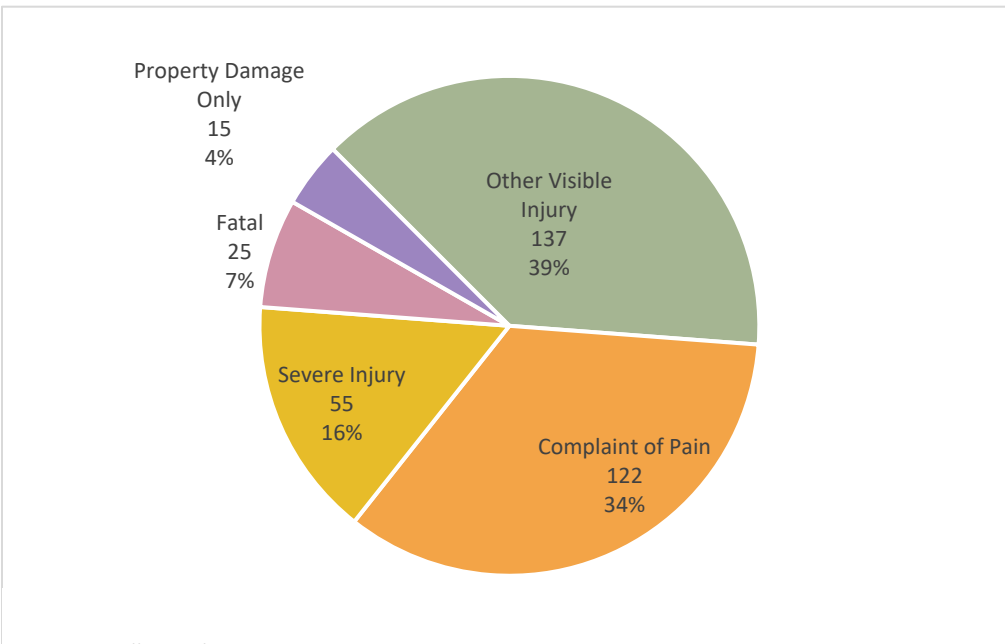


Figure 10. Collisions by severity

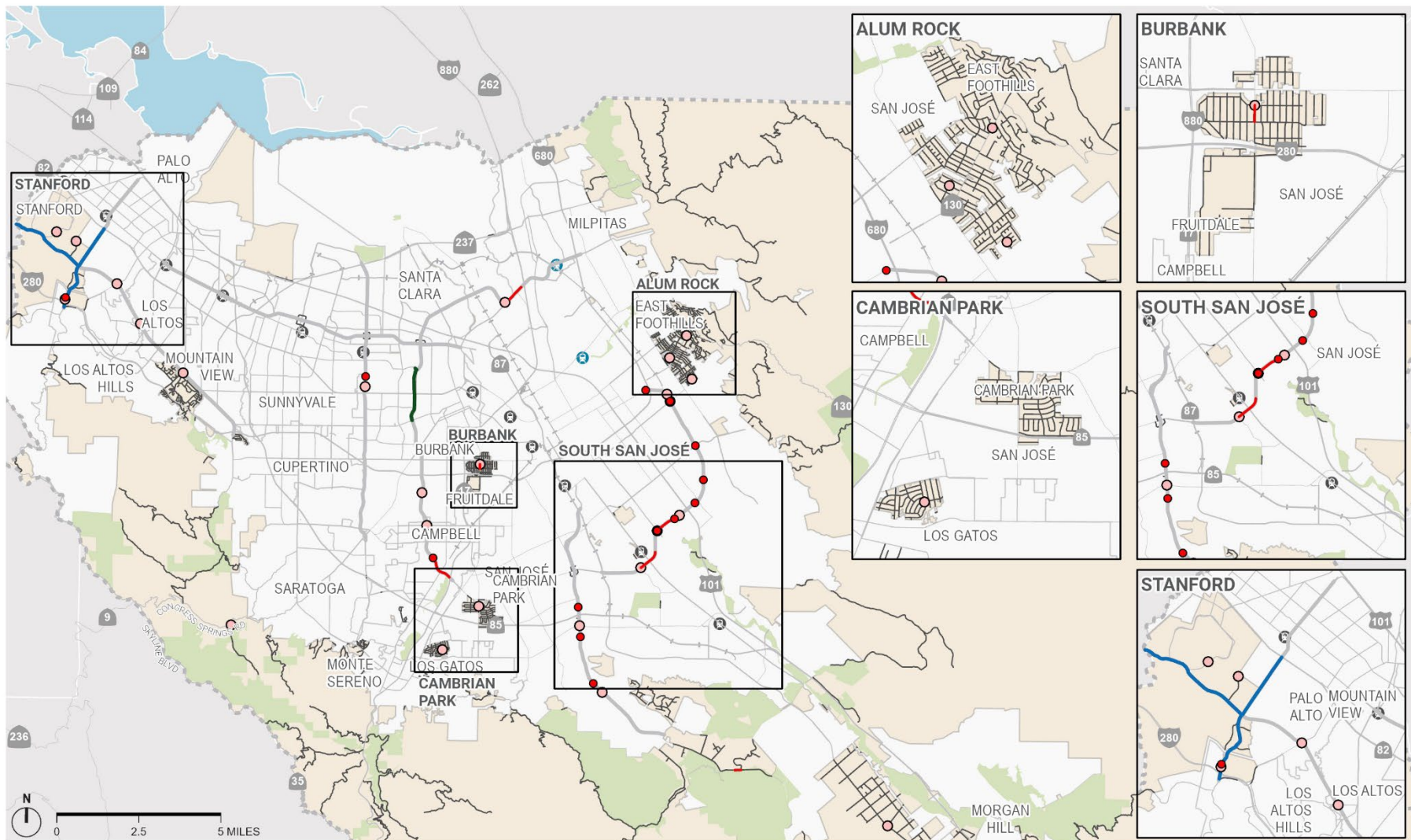
Primary Collision Factor

Table 1 shows the primary collision factor for the 25 fatal collisions. There were a total of 18 fatal pedestrian collisions (5% of total collisions) and 7 fatal bicycle collisions (2% of total collisions). The top causes for fatal collisions in the County were registered as pedestrian violations (36%), and violation of traffic signal and signs (8%), improper passing (8%), and unsafe starting or backing (8%). The location of collisions resulting in serious injuries or fatalities can be found in **Figure 11** and **Figure 12**.

Table 1. Collision Cause for Fatal Collisions

Stated Cause	Fatal Collisions			Percent of Total*
	Pedestrian	Bicyclist	Total	
Pedestrian Violation	9	0	9	36%
Traffic Signals and Signs	2	0	2	8%
Improper Passing	1	1	2	8%
Unsafe Starting or Backing	1	1	2	8%
Impeding Traffic	1	0	1	4%
Improper Turning	1	0	1	4%
Other	1	0	1	4%
Other Hazardous Movement	1	0	1	4%
Unknown	1	0	1	4%
Driving Under the Influence	0	1	1	4%
Other Improper Driving	0	1	1	4%
Unsafe Speed	0	1	1	4%
Wrong Side of Road	0	1	1	4%
Automobile Right of Way	0	1	1	4%
Total	18	7	25	100%

**Percent of total is based on total fatal collisions*



FATAL AND SERIOUS INJURY COLLISIONS

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

EXISTING BIKEWAYS (COUNTY CONTROLLED)

- Class I: Shared-Use Path
- Class II: Bicycle Lane
- Class III: Bicycle Route
- Class IV: Separated Bikeway

FEATURES

- BART Station
- Caltrain Station
- Park
- City Boundary
- Unincorporated Area
- Santa Clara County

FATAL AND SERIOUS INJURY COLLISIONS (NUMBER OF INTERSECTION & ROADWAY COLLISIONS)

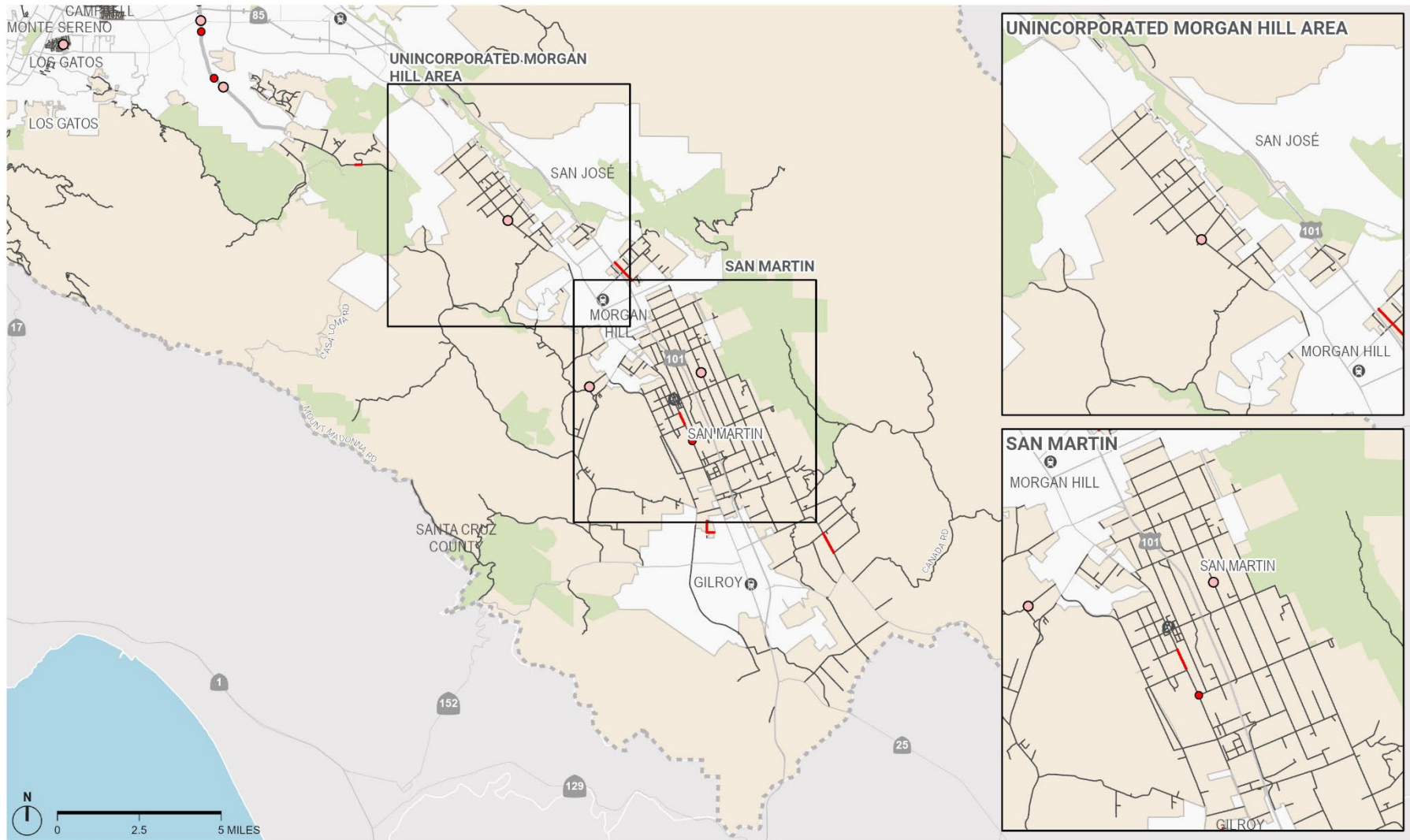
- Fatalities at Intersections
- Serious Injuries at Intersections
- Fatalities on Road Segments



Source: Santa Clara County, VTA, US Census, Esri, July 2021.

Kimley-Horn

Figure 11. Fatal and Serious Injury Collisions (2015-2020)



FATAL AND SERIOUS INJURY COLLISIONS

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

Source: Santa Clara County, VTA, US Census, Esri, July 2021.

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FATAL AND SERIOUS INJURY COLLISIONS (NUMBER OF INTERSECTION & ROADWAY COLLISIONS)

- | | |
|-----------------------------------|-----------------------------|
| Fatalities at Intersections | Fatalities on Road Segments |
| Serious Injuries at Intersections | |



Figure 12. Fatal and Serious Injury Collisions (2015-2020)

External Conditions

External conditions, such as environmental factors and motorist behavior, that may have contributed to collisions were tabulated for intersections and roadway segments and are shown in **Table 2**. These factors included:

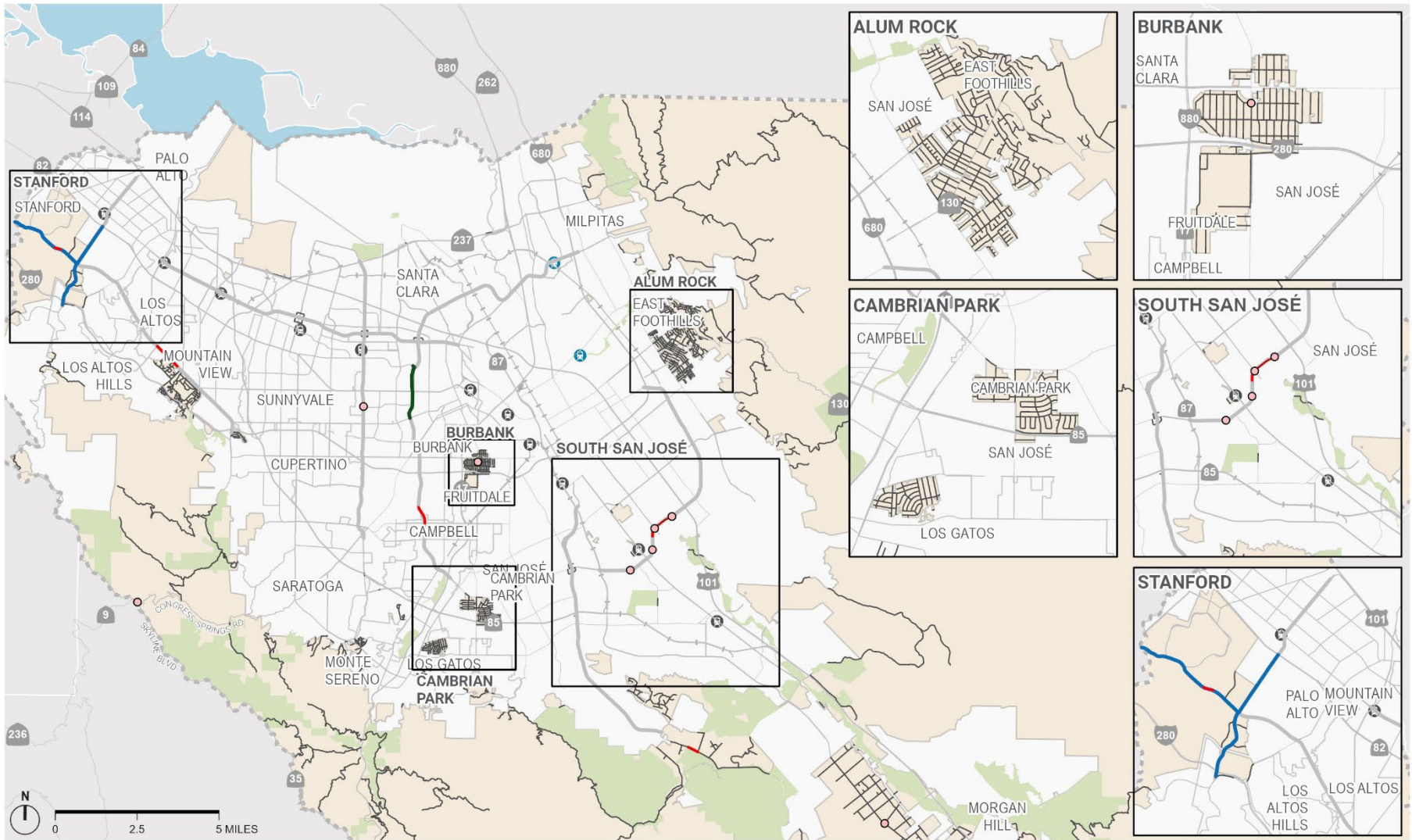
- Dark conditions (i.e., Collisions at night) (**Figure 13** and **Figure 14**)
- Collisions that involved the motorist under the influence of alcohol (**Figure 15** and **Figure 16**)
- Collisions that involved aggressive motorists as noted in the collision report (**Figure 17** and **Figure 18**)
- Collisions that involved a distracted motorists as noted in the collision report (**Figure 19** and **Figure 20**)³
- Collisions that occurred during wet pavement conditions (**Figure 21** and **Figure 22**)

As noted in **Table 2**, the highest number of collisions with recorded external factors involved aggressive motorists.

Table 2. Number of Collisions Based on External Conditions

External Conditions	Bike	Pedestrian	Total
Night-time	6	18	24
Under the Influence of Alcohol	2	5	7
Aggressive Motorist	36	23	59
Distracted Motorist	1	1	2
Wet Pavement	7	14	21

³ Note that the distracted driving collisions only were recorded to occur at intersections



NIGHTTIME COLLISIONS

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

- EXISTING BIKEWAYS (COUNTY CONTROLLED)**
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 - Class IV: Separated Bikeway

- FEATURES**
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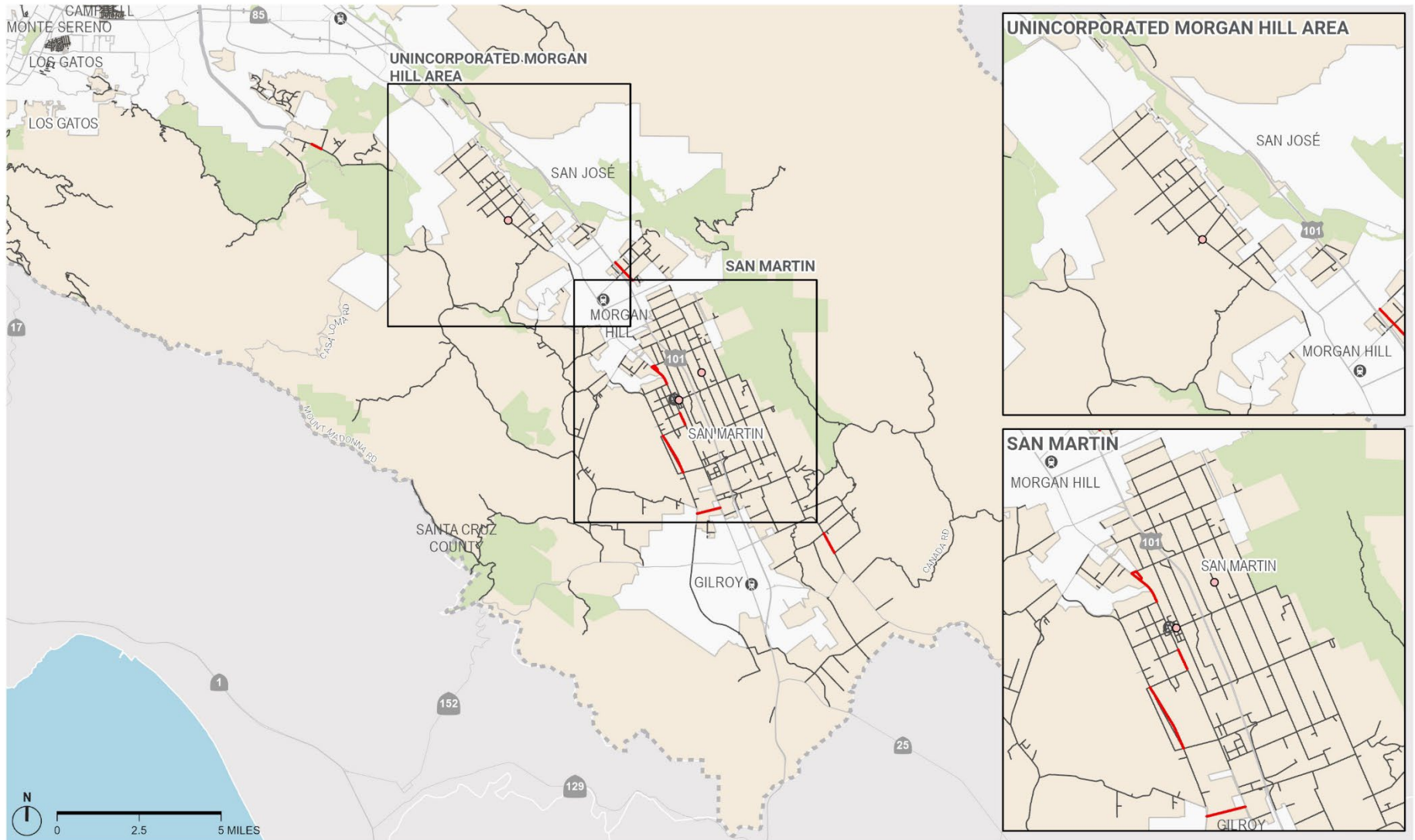
NIGHTTIME COLLISIONS (NUMBER OF INTERSECTION & ROADWAY COLLISIONS)

- | | |
|-------------------------|--------------------|
| Intersection Collisions | Roadway Collisions |
| ○ 1 | — 1 |
| | — 2 |

Source: Santa Clara County, VTA, US Census, Esri, July 2021.



Figure 13. Nighttime collisions (2015-2020)



NIGHTTIME COLLISIONS

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

Source: Santa Clara County, VTA, US Census, Esri, July 2021.

EXISTING BIKEWAYS (COUNTY CONTROLLED)

- Class I: Shared-Use Path
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FEATURES

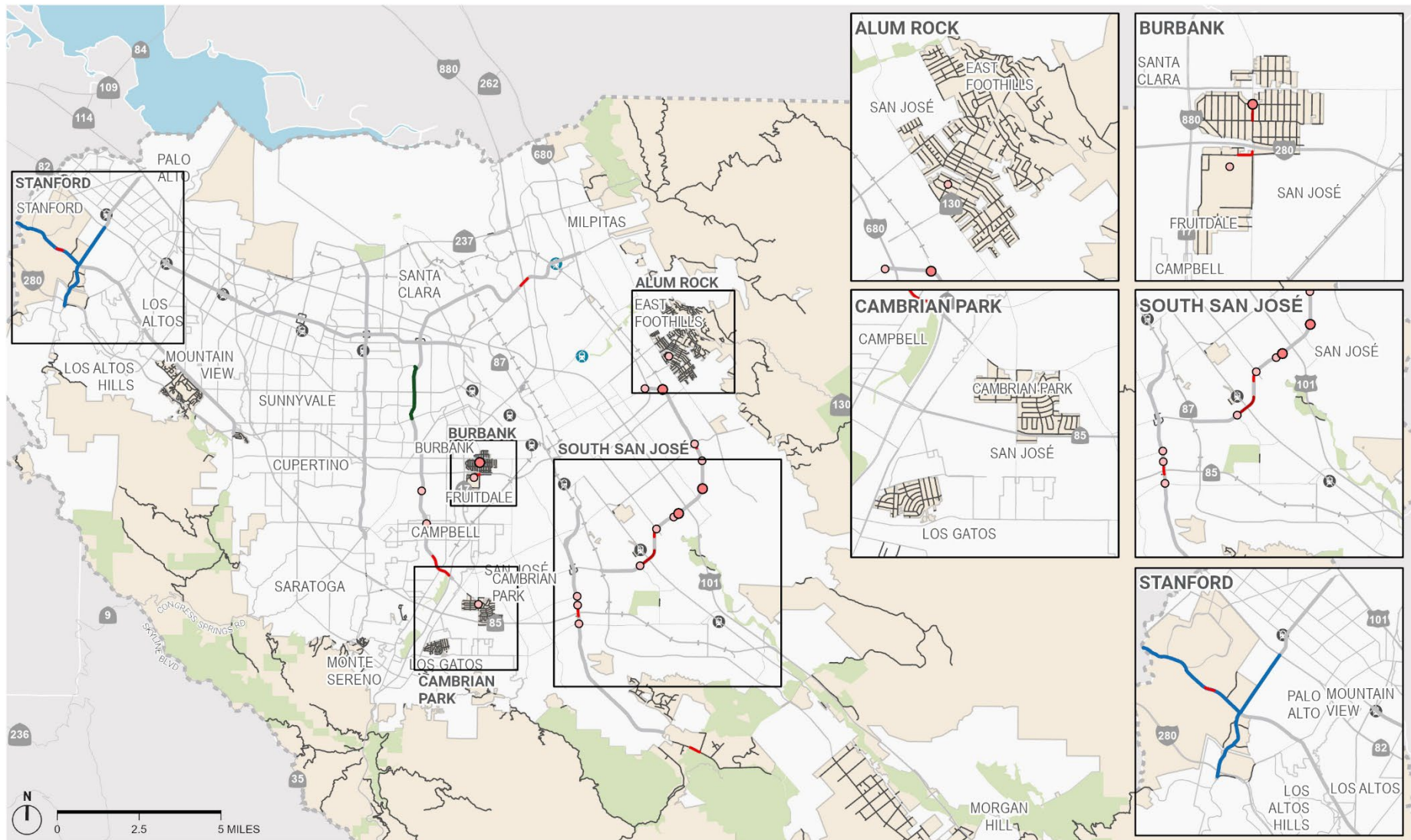
- BART Station
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- Santa Clara County

NIGHTTIME COLLISIONS (NUMBER OF INTERSECTION & ROADWAY COLLISIONS)

- | Intersection Collisions | Roadway Collisions |
|-------------------------|--------------------------------------|
| 1 | — 1 |
| | = 2 |



Figure 2. Nighttime collisions (2015-2020)



IMPAIRED MOTORIST COLLISIONS

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

Source: Santa Clara County, VTA, US Census, Esri, July 2021.



EXISTING BIKEWAYS (COUNTY CONTROLLED)

- Class I: Shared-Use Path
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FEATURES

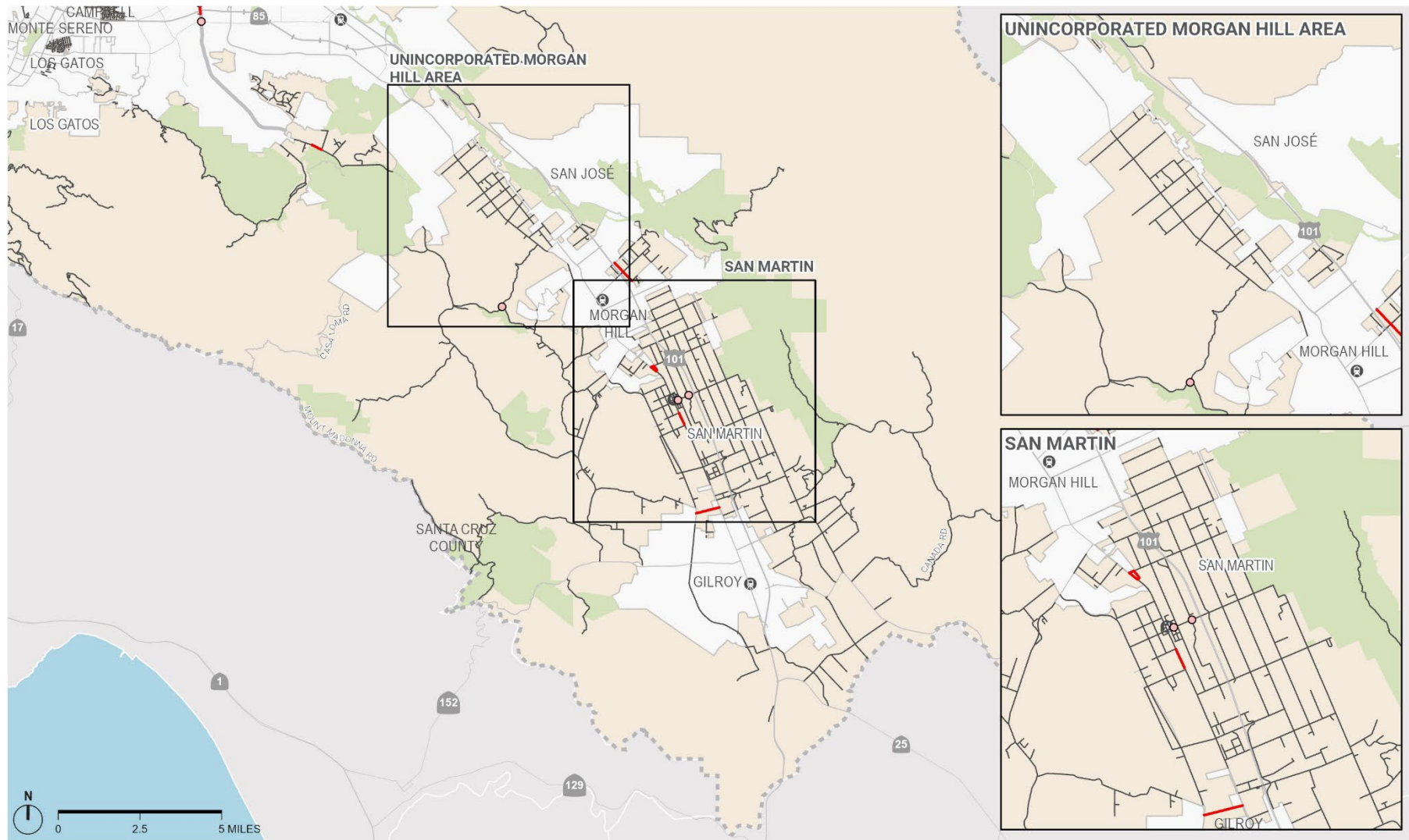
- BART Station
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- Santa Clara County

IMPAIRED MOTORIST COLLISIONS (NUMBER OF INTERSECTION & ROADWAY COLLISIONS)

- | Intersection Collisions | Roadway Collisions |
|-------------------------|--------------------------------------|
| 1 | — 1 |
| 2 | — 2 |



Figure 15. Impaired motorist collisions (2015-2020)



IMPAIRED MOTORIST COLLISIONS

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

Source: Santa Clara County, VTA, US Census, Esri, 2015-2020

Kimley-Horn

EXISTING BIKEWAYS (COUNTY CONTROLLED)

- Class I: Shared-Use Path
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- Class III: Bicycle Route
- Class IV: Separated Bikeway

FEATURES

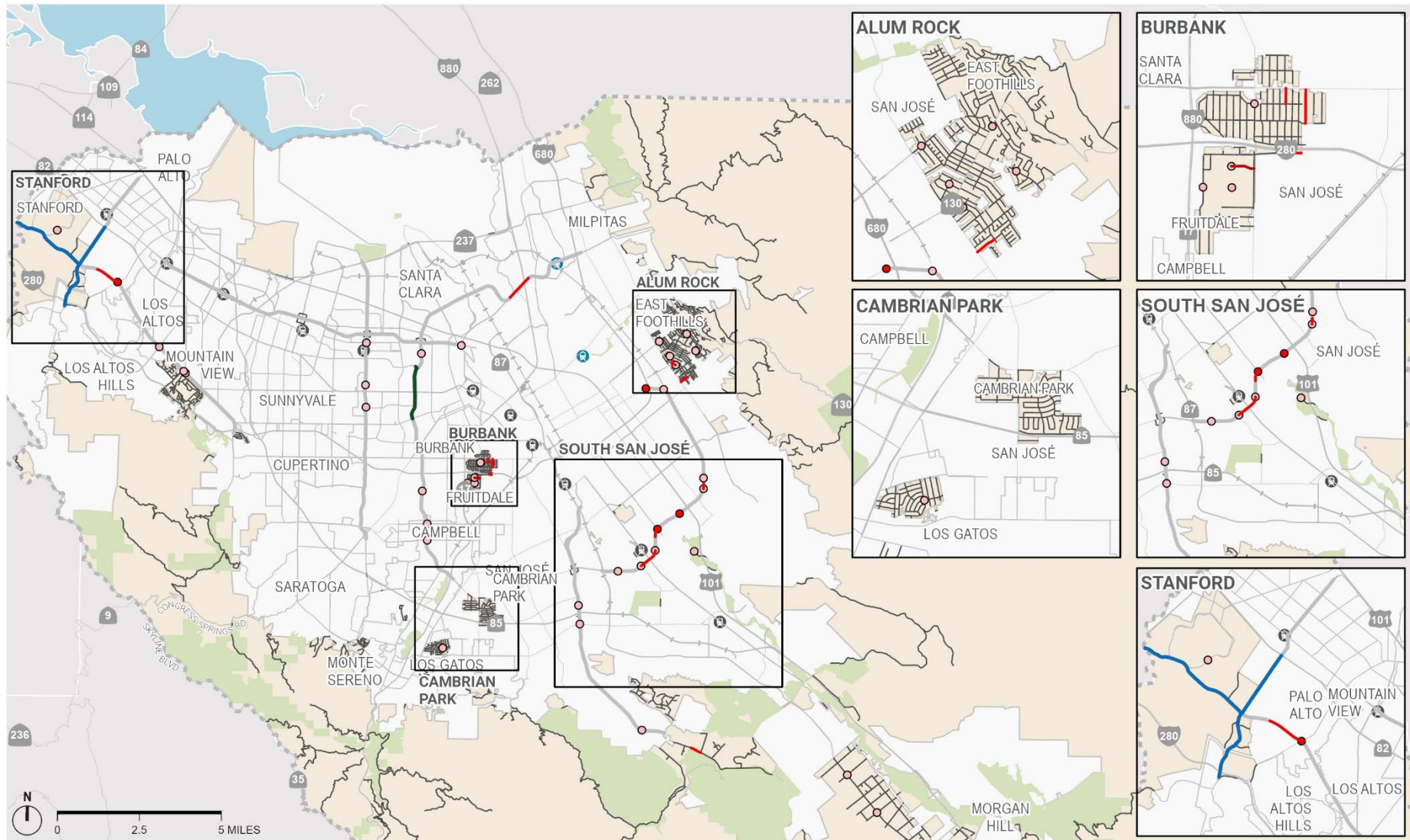
- BART Station
- Caltrain Station
- Park
- City Boundary
- Unincorporated Area
- Santa Clara County

IMPAIRED MOTORIST COLLISIONS (NUMBER OF INTERSECTION & ROADWAY COLLISIONS)

- | Intersection Collisions | Roadway Collisions |
|-------------------------|--------------------|
| 1 | 1 |
| 2 | 2 |



Figure 16. Impaired motorist collisions (2015-2020)



AGGRESSIVE COLLISIONS

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

Source: Santa Clara County, VTA, US Census, Esri, July 2021.

Kimley-Horn

EXISTING BIKEWAYS (COUNTY CONTROLLED)

- Class I: Shared-Use Path
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FEATURES

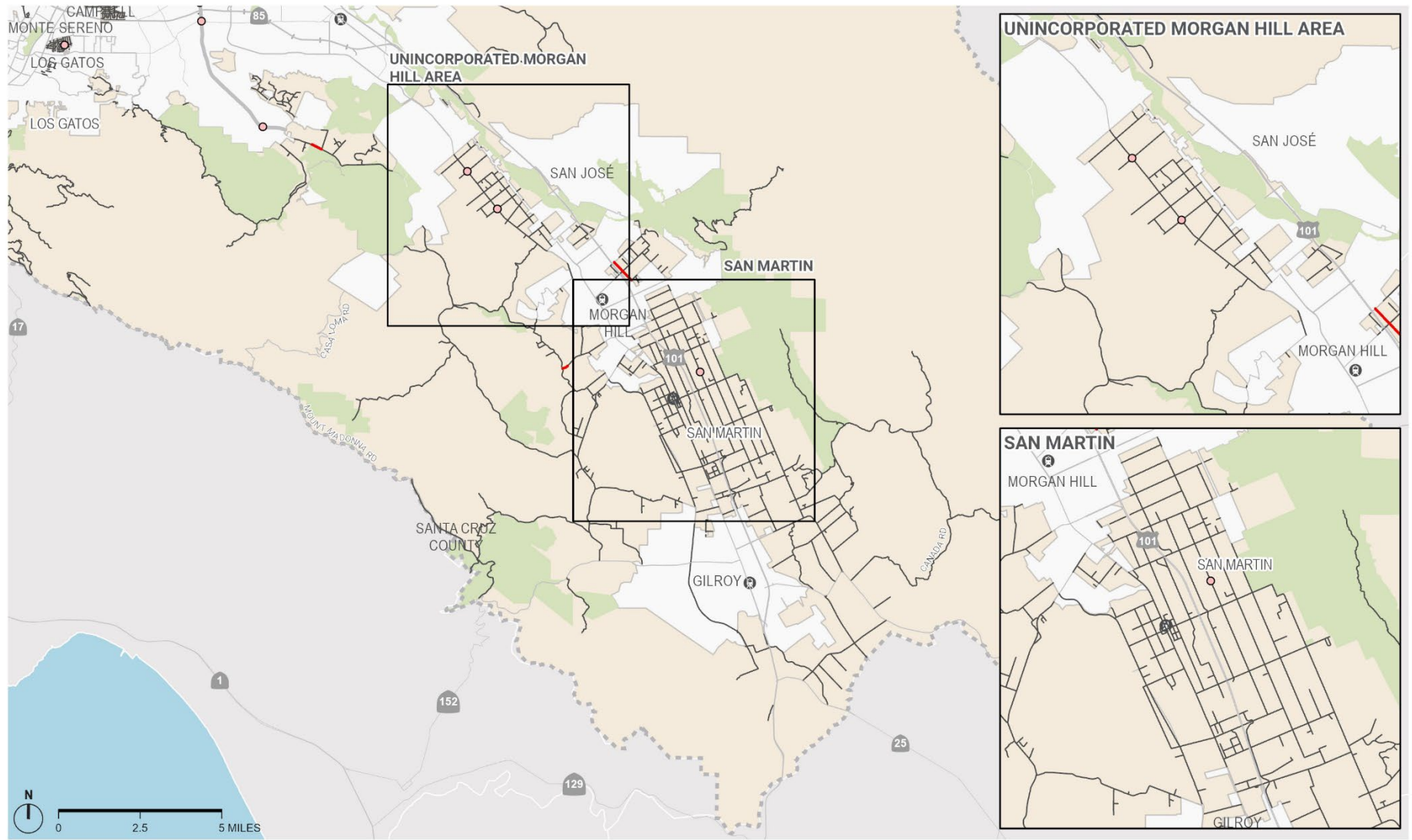
- BART Station
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- Park
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- Santa Clara County

AGGRESSIVE COLLISIONS (NUMBER OF INTERSECTION & ROADWAY COLLISIONS)

- | Intersection Collisions | Roadway Collisions |
|-------------------------|--------------------------------------|
| 1 | — 1 |
| 2 | — 2 |



Figure 17. Aggressive collisions (2015-2020)



AGGRESSIVE COLLISIONS

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

Kimley-Horn Source: Santa Clara County, VTA, US Census, Esri, July 2021.

EXISTING BIKEWAYS (COUNTY CONTROLLED)

- Class I: Shared-Use Path
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FEATURES

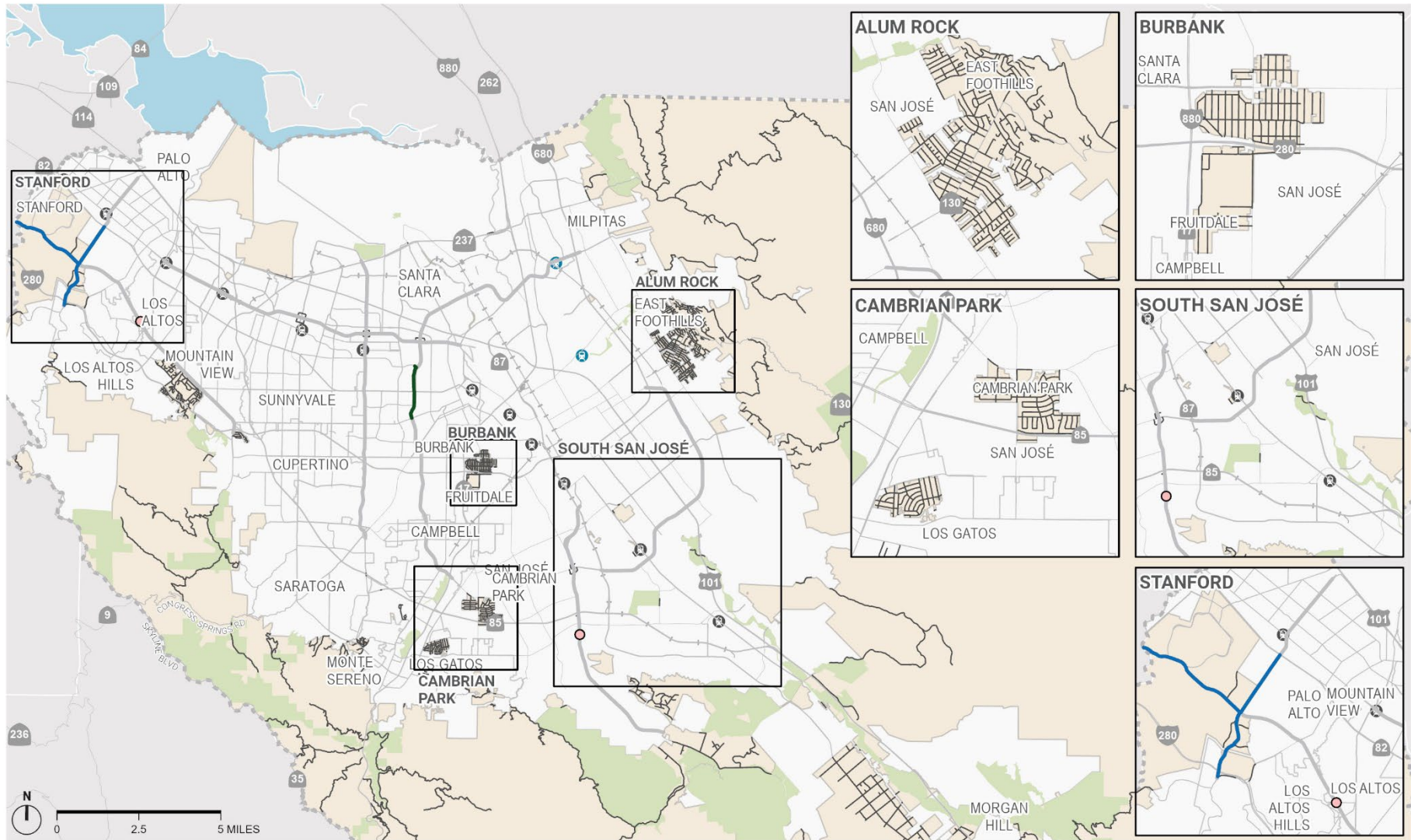
- BART Station
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- Santa Clara County

AGGRESSIVE COLLISIONS (NUMBER OF INTERSECTION & ROADWAY COLLISIONS)

- | Intersection Collisions | Roadway Collisions |
|-------------------------|--------------------|
| 1 | 1 |
| 2 | 2 |



Figure 18. Aggressive collisions(2015-2020)



DISTRACTED DRIVING COLLISIONS

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

- EXISTING BIKEWAYS (COUNTY CONTROLLED)**
- Class I: Shared-Use Path
 - Class II: Bicycle Lane
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- FEATURES**
- BART Station
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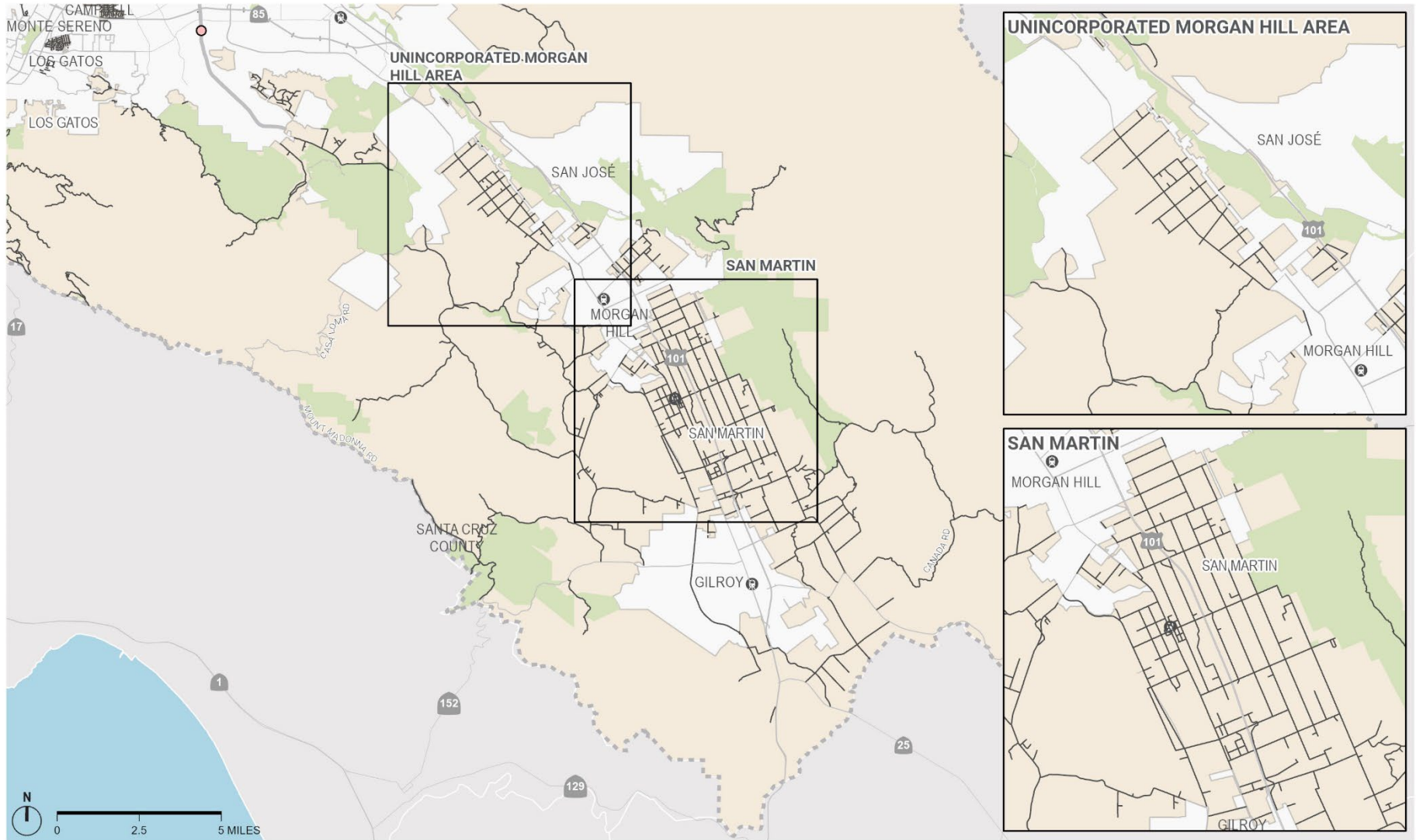
- DISTRACTED DRIVING COLLISIONS (NUMBER OF INTERSECTION COLLISIONS)**
- Intersection Collisions
 - 1



Source: Santa Clara County, VTA, US Census, Esri, July 2021.

Kimley»Horn

Figure 19. Distracted Driving Collisions (2015-2020)



DISTRACTED DRIVING COLLISIONS

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

Source: Santa Clara County, VTA, US Census, Esri, July 2021.
 Kimley Horn

EXISTING BIKEWAYS (COUNTY CONTROLLED)

- Class I: Shared-Use Path
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- Class III: Bicycle Route
- Class IV: Separated Bikeway

FEATURES

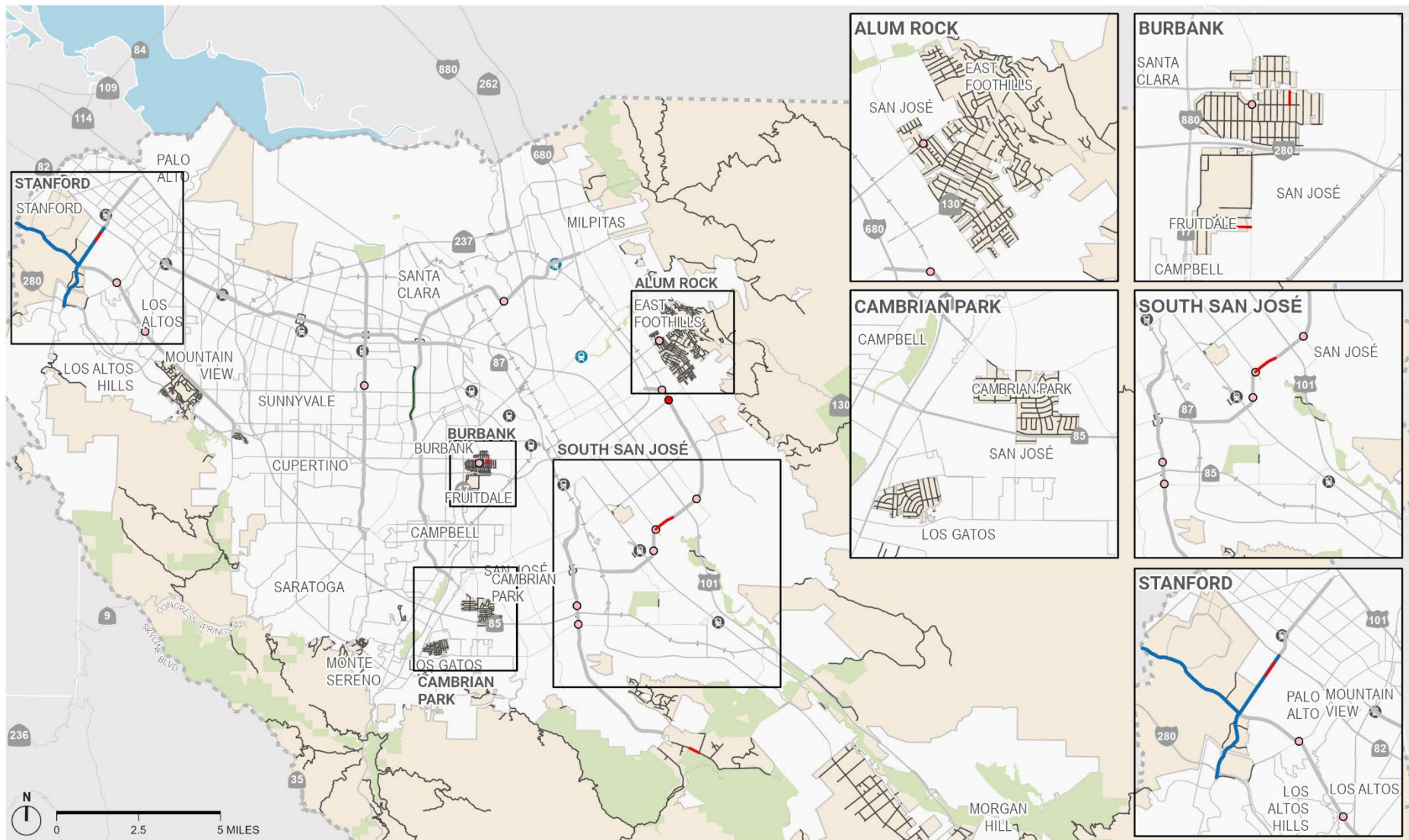
- BART Station
- Caltrain Station
- Park
- City Boundary
- Unincorporated Area
- Santa Clara County

DISTRACTED DRIVING COLLISIONS (NUMBER OF INTERSECTION COLLISIONS)

- Intersection Collisions
- 1



Figure 19. Distracted Driving Collisions (2015-2020)



WET COLLISIONS

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

EXISTING BIKWAYS (COUNTY CONTROLLED)

- Class I: Shared-Use Path
- Class II: Bicycle Lane
- Class III: Bicycle Route
- Class IV: Separated Bikeway

FEATURES

- BART Station
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- Santa Clara County

WET COLLISIONS (NUMBER OF INTERSECTION & ROADWAY COLLISIONS)

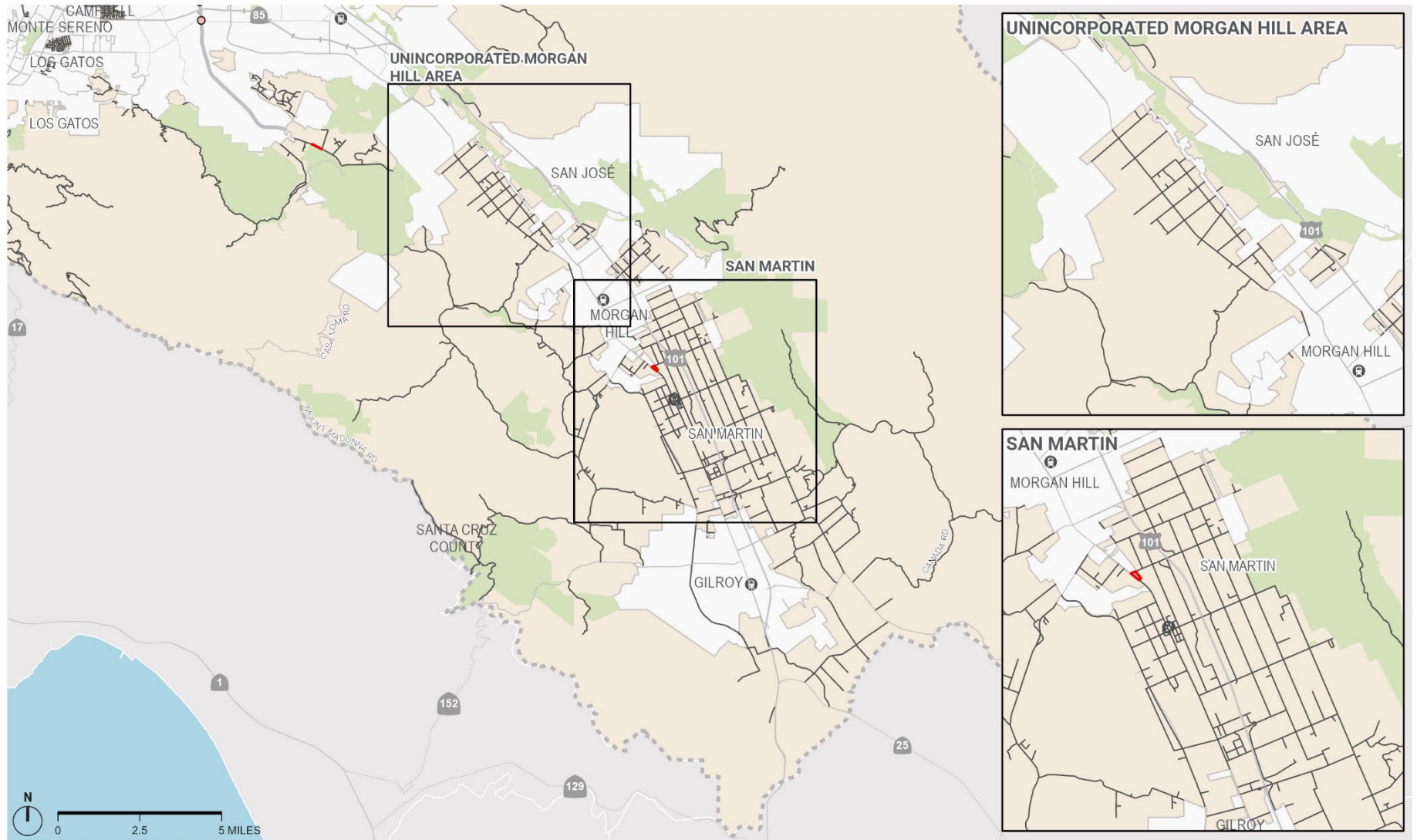
- | | |
|-------------------------|--------------------|
| Intersection Collisions | Roadway Collisions |
| 1 | 1 |
| 2 | |



Source: Santa Clara County, VTA, US Census, Esri, July 2021.

Kimley»Horn

Figure 21. Wet pavement collisions (2015-2020)



WET COLLISIONS

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

Source: Santa Clara County, VTA, US Census, Esri, July 2021.

EXISTING BIKEWAYS (COUNTY CONTROLLED)

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- Santa Clara County

WET COLLISIONS (NUMBER OF INTERSECTION & ROADWAY COLLISIONS)

- | Intersection Collisions | Roadway Collisions |
|-------------------------|--------------------|
| 1 | 1 |
| 2 | |



Figure 22. Wet pavement Collisions (2015-2020)

High Injury Network

The collision data shows that more collisions occurred at or within 250 feet of an intersection than along roadway segments. **Table 3** and **Table 4** list the signalized and unsignalized intersections registering the most collisions involving bicyclists and pedestrians. Several intersections along Almaden and Capitol Expressways are included on the most frequent collision location lists. The roadway segments with the highest incidence of collisions are listed in **Table 5**.

Table 3. High collision intersections (Signalized)

Rank	Signalized Intersection	Total Collisions
1	Almaden Expwy and Cherry Ave	12
2	Capitol Expwy and Story Rd	8
3	Almaden Expwy and Blossom Hill Rd	7
4	Capitol Expwy and Seven Trees Blvd	7
5	Capitol Expwy and Senter Rd	7
6	Foothill Expwy and Arastradero Rd	6
7	Capitol Expwy and McLaughlin Ave	5
8	Capitol Expwy and S Capitol Ave	5
9	Capitol Expwy and Silver Creek Road	4
10	Aborn Rd and Capitol Expwy	4

Table 4. High collision intersections (Unsignalized)

Rank	Unsignalized Intersections	Total Collisions
1	S Bascom Ave and Elliott St	9
2	McKee Rd and Ridge Vista Ave	4
3	Wyrick Ave and Leigh Ave	3
4	Moorpark Ave and Empey Way	2
5	Capitol Expwy and Capitol Expwy Frontage Rd	2
5	Pickford Ave and Hyland Ave	2
5	Flemming Ave and McVay Ave	2
5	Junipero Serra Fwy and Page Mill Rd	2

Table 5. High-collision roadway segments

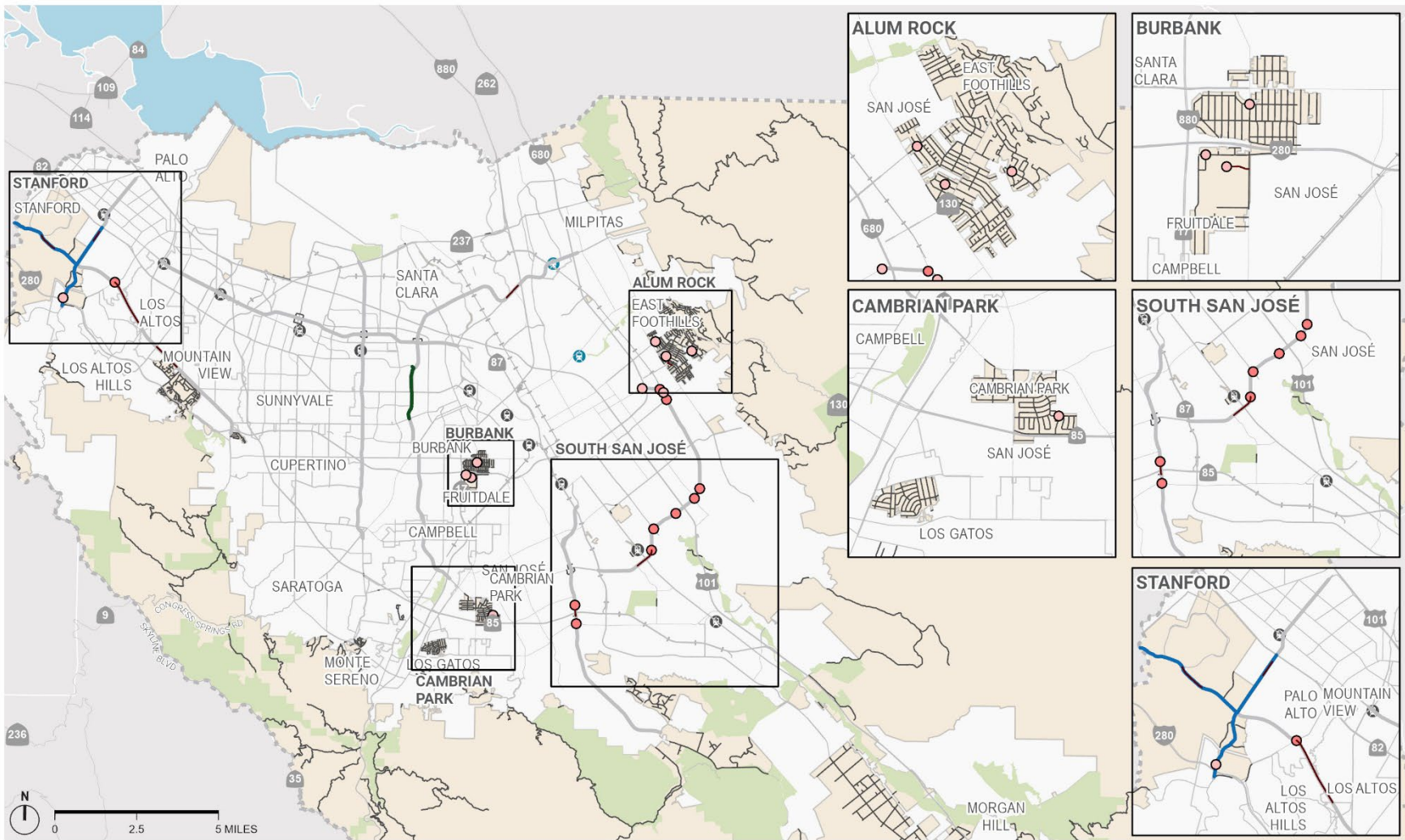
Rank	Road Segment	Total Collisions
1	Montague Expwy	4
2	Almaden Expwy	4
3	Page Mill Expwy	4
4	Capitol Expwy	3
5	Condit Rd	3
6	Foothill Expwy	3
7	Junipero Serra Blvd	2
8	Foothill Expwy	2
9	Millar Ave	2

A list of roadway corridors with collectively the highest number of collisions can be found below. This was calculated by combining the total signalized, unsignalized, and roadway collisions for each roadway corridor.⁴

- Capitol Expressway (25 intersections with 72 collisions)
- Almaden Expressway (15 intersections with 44 collisions)
- Foothill Expressway (10 intersections with 21 collisions)
- Bascom Avenue (7 intersections with 20 collisions)
- San Tomas Expressway (13 intersections with 18 collisions)
- Montague Expressway (12 intersections with 18 collisions)
- Lawrence Expressway (12 intersections with 15 collisions)
- Page Mill Road (7 intersections with 12 collisions)

Figure 23 and **Figure 24** below illustrate the high injury network based on the number of collisions registered at intersections (signalized and unsignalized) and on roadway corridors in the County.

⁴ If an intersection or roadway segment is not listed in the top 10, it is still added to the total collision count.



BICYCLE AND PEDESTRIAN HIGH INJURY NETWORK

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

Kimley Horn

Source: Santa Clara County, VTA, US Census, Esri, July 2021.

EXISTING BIKEWAYS (COUNTY CONTROLLED)

- Class I: Shared-Use Path
- Class II: Bicycle Lane
- Class III: Bicycle Route
- Class IV: Separated Bikeway

FEATURES

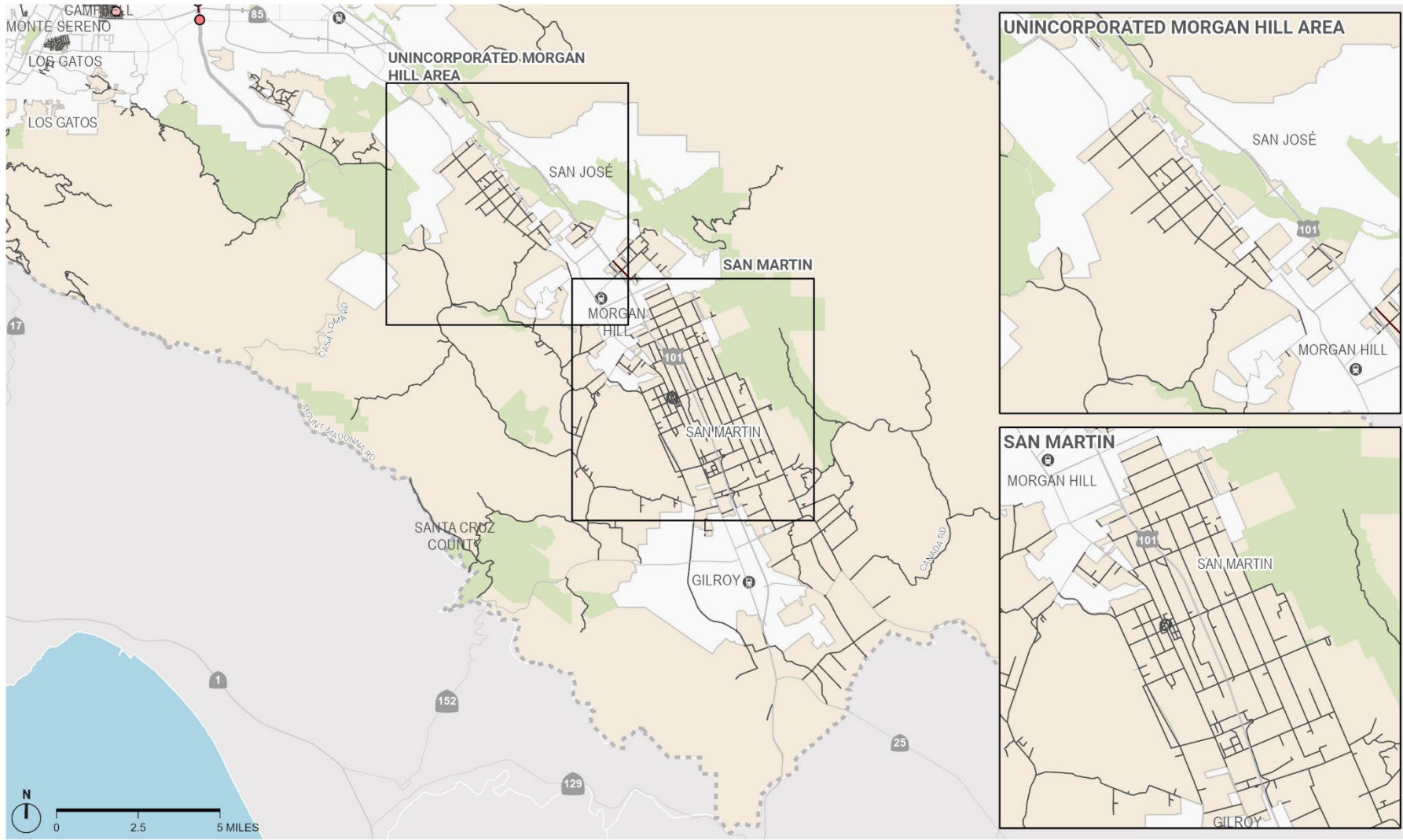
- BART Station
- Caltrain Station
- Park
- City Boundary
- Unincorporated Area
- Santa Clara County

BICYCLE AND PEDESTRIAN HIGH INJURY NETWORK (TOP NUMBER OF INTERSECTION & ROADWAY COLLISIONS)

- HIN: Signalized Intersection
- HIN: Unsignalized Intersection
- HIN: Roadway Segments



Figure 23. Bicycle and Pedestrian High Injury Network (2015-2020)



BICYCLE AND PEDESTRIAN HIGH INJURY NETWORK

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

Kimley-Horn Source: Santa Clara County, VTA, US Census, Esri, July 2021.

EXISTING BIKEWAYS (COUNTY CONTROLLED)

- Class I: Shared-Use Path
- Class II: Bicycle Lane
- Class III: Bicycle Route
- Class IV: Separated Bikeway

FEATURES

- BART Station
- Caltrain Station
- Park
- City Boundary
- Unincorporated Area
- Santa Clara County

BICYCLE AND PEDESTRIAN HIGH INJURY NETWORK (TOP NUMBER OF INTERSECTION & ROADWAY COLLISIONS)

- HIN: Signalized Intersection
- HIN: Unsignalized Intersection
- HIN: Roadway Segments



Figure 24. Bicycle and Pedestrian High Injury Network (2015-2020)

Section 2 - Pedestrian Collisions

A total of 153 pedestrian related collisions were registered for the six-year period. This section focuses on collisions involving pedestrians and identifies trends from those collisions.

Time Period

The pedestrian collisions that occurred on County roadways were analyzed based on the year, month, day of week, and hour that they occurred.

As noted in **Figure 25**, an annual average of 26 pedestrian related collisions were registered on County-controlled roadways for the study period. The number of pedestrian collisions fluctuated year to year and a spike in the number of collisions was seen in 2016.

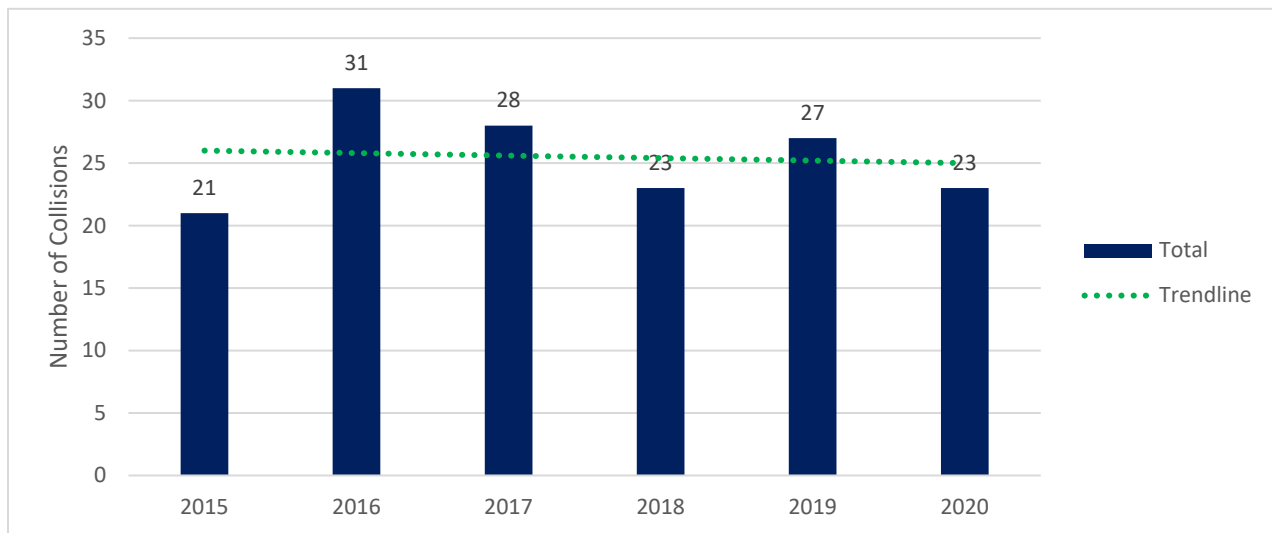


Figure 25. Pedestrian collisions by year

Figure 26 shows the number of collisions recorded per month. The highest number of collisions occurred in the months of November (18), January (17), and December (14). It should be noted that these months experience some of the longest periods of darkness each day. The lowest monthly collisions were in August (8), March (9), and April (9).

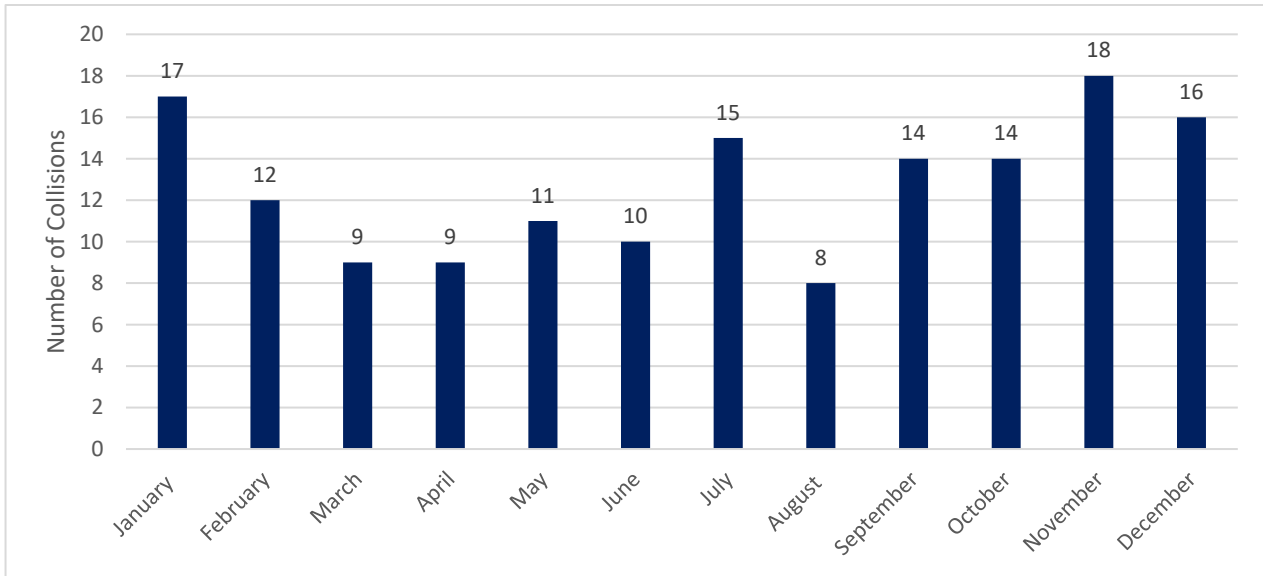


Figure 26. Pedestrian collisions by month

Figure 27 shows the number of pedestrian collisions by day of the week. Data denotes that weekdays experience generally higher numbers of collisions than weekends. Weekend average were significantly lower, averaging 16 collisions.

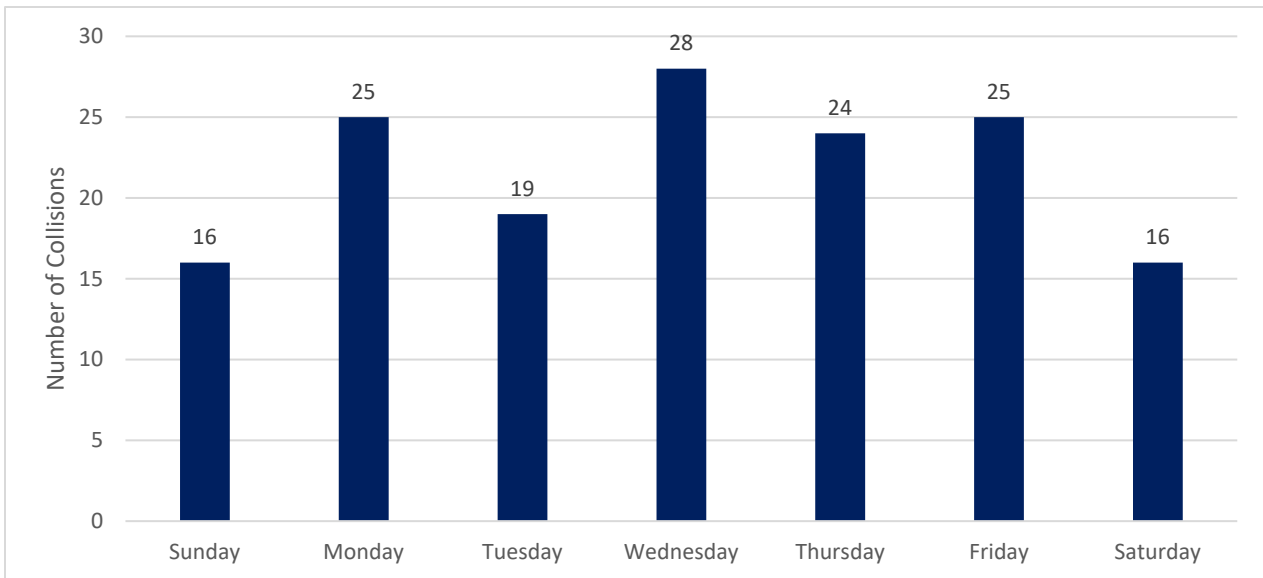


Figure 27. Pedestrian collisions by day of the week

While the number of collisions peaks generally during the afternoon and evening periods, shown in **Figure 28**, the highest number of collisions within any two-hour period occurred between 8 p.m. and 10 p.m., following the evening peak commuting period, but when it is dark outside for most of the year. This was followed by the 2-hour period of 6 p.m. to 8 p.m., around dusk or when visibility may be limited due to sun glare during certain months of the year and when it is dark other times of the year.

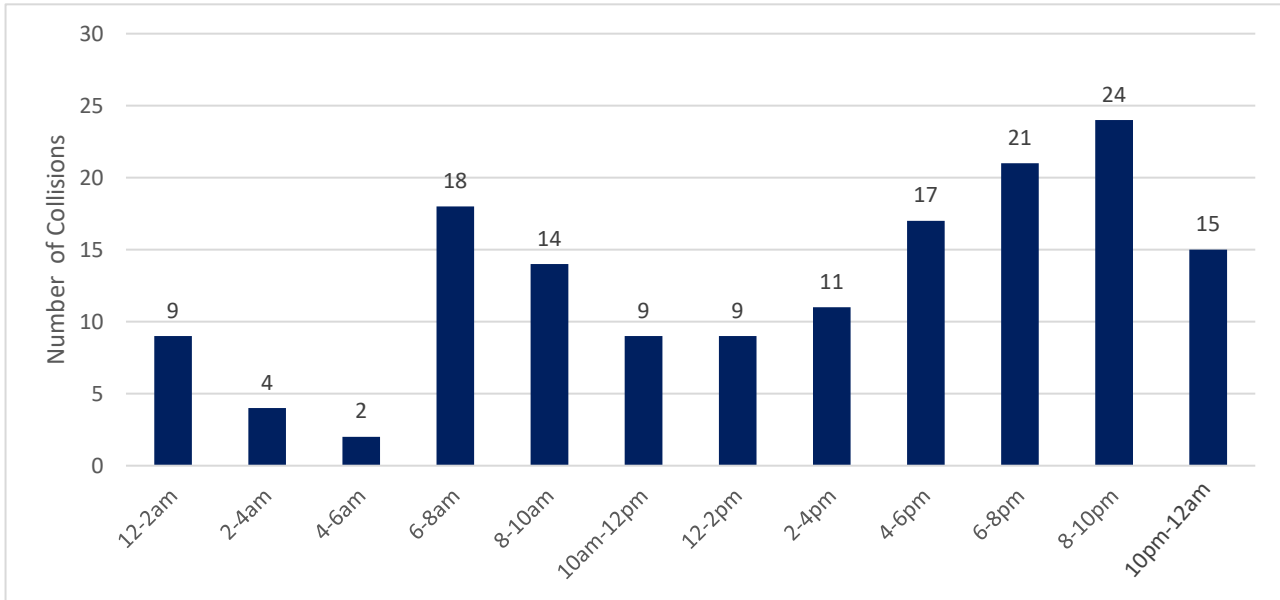
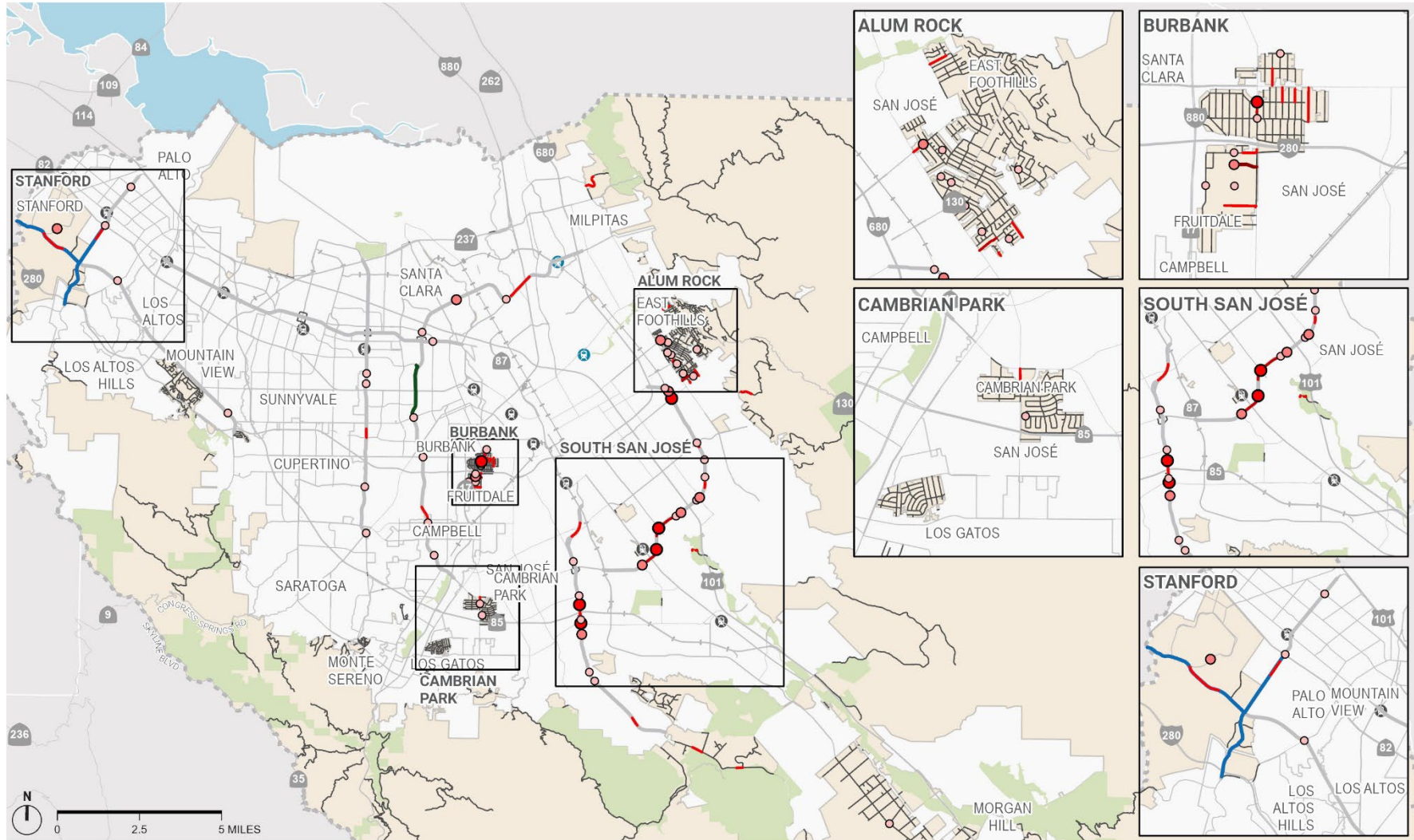


Figure 28. Pedestrian collisions by time of day



PEDESTRIAN COLLISIONS

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

Source: Santa Clara County, VTA, US Census, Esri, July 2021.



- EXISTING BIKEWAYS (COUNTY CONTROLLED)**
- Class I: Shared-Use Path
 - Class II: Bicycle Lane
 - Class III: Bicycle Route
 - Class IV: Separated Bikeway

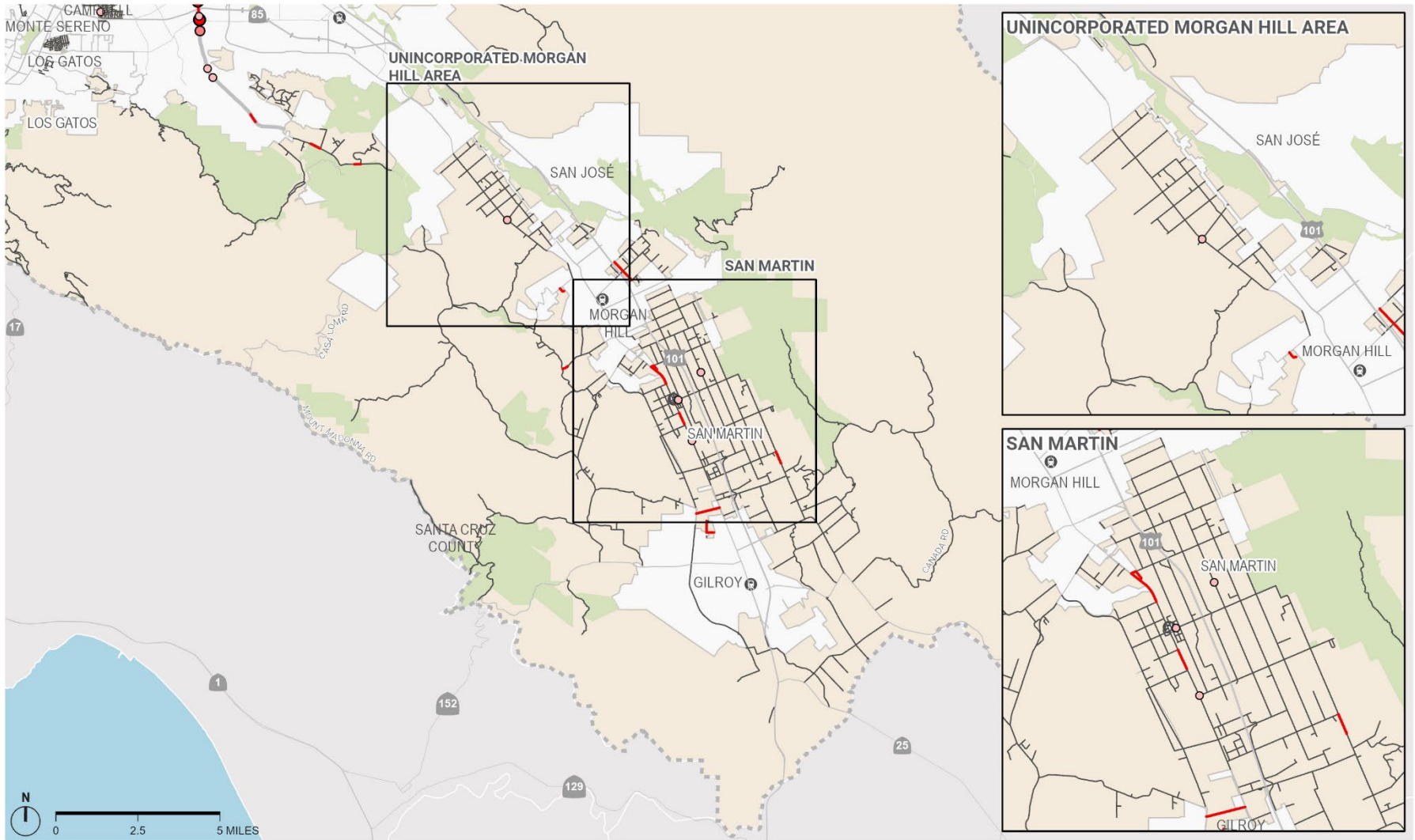
- FEATURES**
- BART Station
 - Caltrain Station
 - Park
 - City Boundary
 - Unincorporated Area
 - Santa Clara County

PEDESTRIAN COLLISIONS (NUMBER OF INTERSECTION & ROADWAY COLLISIONS)

Intersection Collisions	Roadway Collisions
1	— 1
2 - 4	— 2
5 - 7	— 4



Figure 29. Pedestrian collisions (2015-2020)



PEDESTRIAN COLLISIONS

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

Kimley-Horn Source: Santa Clara County, VTA, US Census, Esri, July 2021.

EXISTING BIKEWAYS (COUNTY CONTROLLED)

- Class I: Shared-Use Path
- Class II: Bicycle Lane
- Class III: Bicycle Route
- Class IV: Separated Bikeway

FEATURES

- BART Station
- Caltrain Station
- Park
- City Boundary
- Unincorporated Area
- Santa Clara County

PEDESTRIAN COLLISIONS (NUMBER OF INTERSECTION & ROADWAY COLLISIONS)

Intersection Collisions	Roadway Collisions
1	1
2-4	2
5-7	4



Figure 30. Pedestrian collisions (2015-2020)

Party at Fault

Figure 31 provides information about the party at fault for pedestrian related collisions as registered for the study period. Just over half (52%) of all pedestrian related collisions registered as motorist at fault.

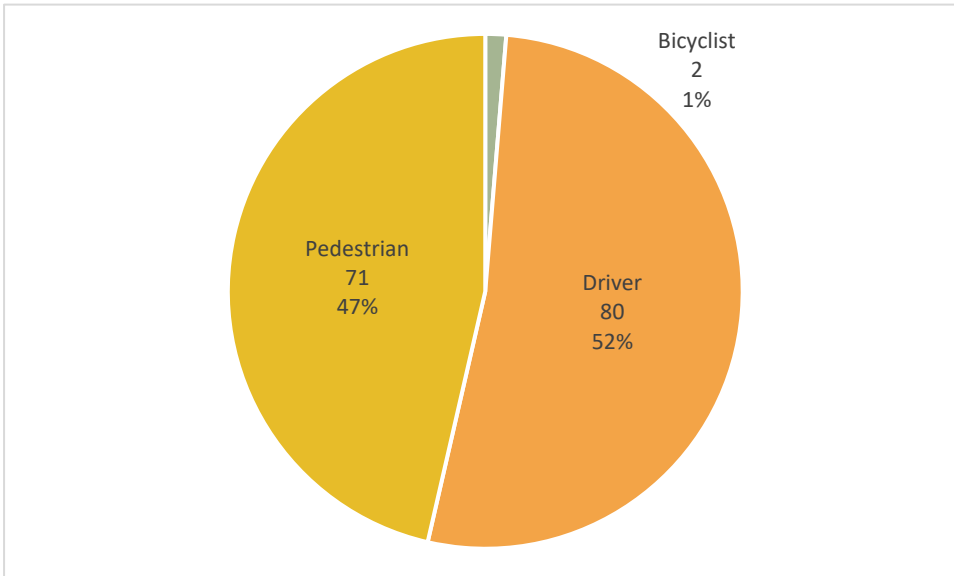


Figure 31. Pedestrian collisions by party at fault

Severity

Figure 32 provides information about the severity of collisions. As noted, a total of 18 (12%) were registered as fatalities and 31 (20%) as severe injuries (see **Figure 32**Figure).

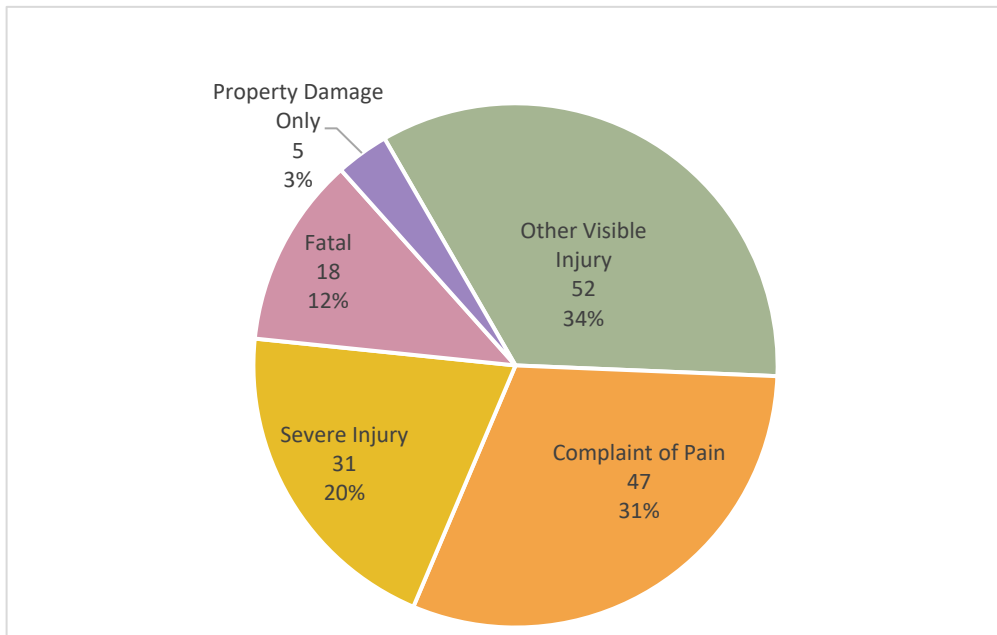


Figure 32. Pedestrian collision by severity

Pedestrian Location

Figure 33 shows the pedestrian action for pedestrian-involved collisions by type. The most commonly reported pedestrian action was crossing outside the designated crosswalk (34%), followed by crossing in crosswalk at intersection (31%).

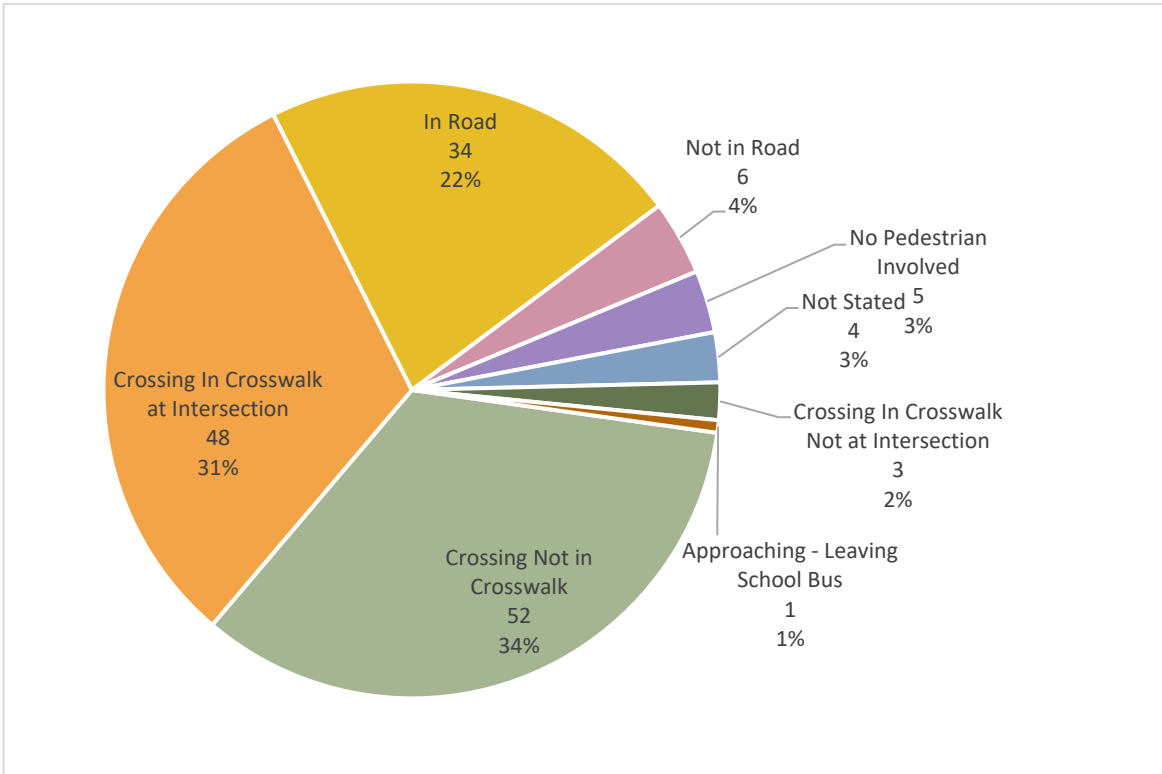


Figure 33. Pedestrian collisions by pedestrian action

Primary Collision Factor

As noted in **Figure 34**, 40% of pedestrian collisions in Santa Clara County were registered as pedestrian violation, followed by pedestrian right-of-way violations at 17%. The most commonly reported motor vehicle violations were unsafe speeds at 12%, improper turning at 7%, and ignoring traffic signals and signs at 3%.

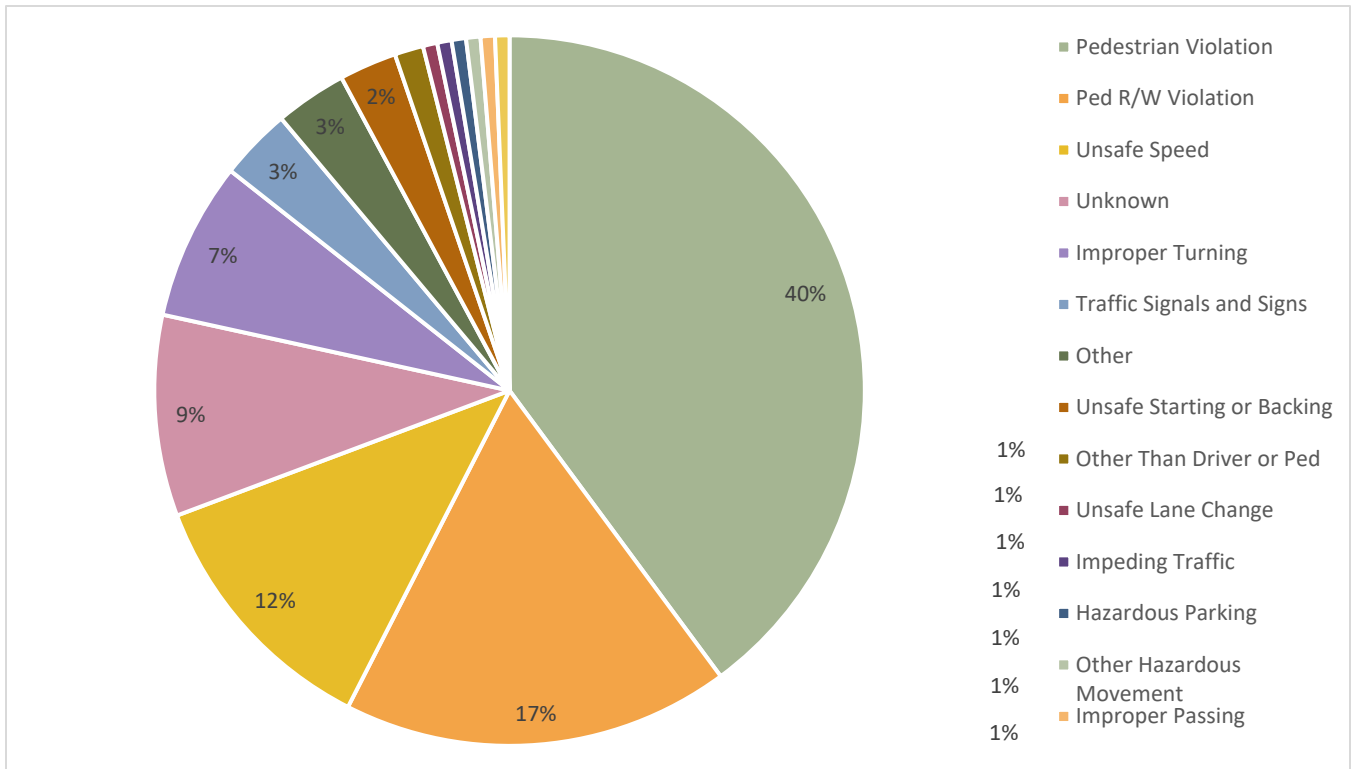
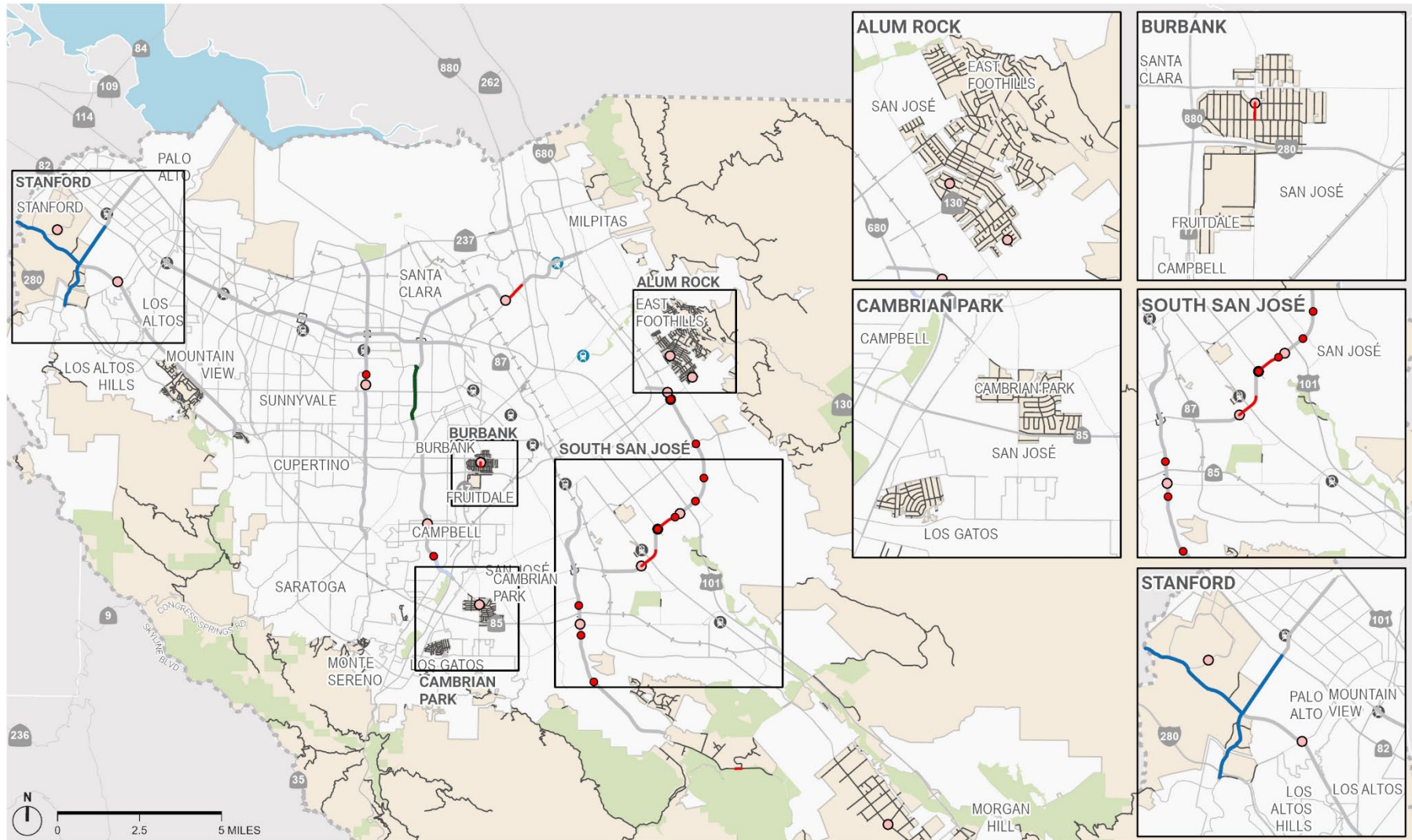


Figure 34. Primary collision factors - pedestrian collisions

Table 6. Cause of fatal pedestrian collisions

Cause	Number
Pedestrian Violation	9
Traffic Signal and Signs	2
Impeding Traffic	1
Improper Passing	1
Improper Turning	1
Other	1
Other Hazardous Movement	1
Unknown	1
Unsafe Starting or Backing	1
TOTAL	18

A total of 18 pedestrian fatalities were recorded. The causes for these collisions are shown in **Table 6**. Half of fatal collisions were identified as pedestrian violations (50%) with the next highest cause registered as motorists violation of traffic signals and signs (11%). A majority of pedestrian collisions occurred along major arterials. The locations of the pedestrian fatal and serious injury collisions are show in **Figure 35** and **Figure 36**.



PEDESTRIAN FATAL AND SERIOUS INJURY COLLISIONS

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

Source: Santa Clara County, VTA, US Census, Esri, July 2021.

Kimley **Horn**

EXISTING BIKEWAYS (COUNTY CONTROLLED)

- Class I: Shared-Use Path
- Class II: Bicycle Lane
- Class III: Bicycle Route
- Class IV: Separated Bikeway

FEATURES

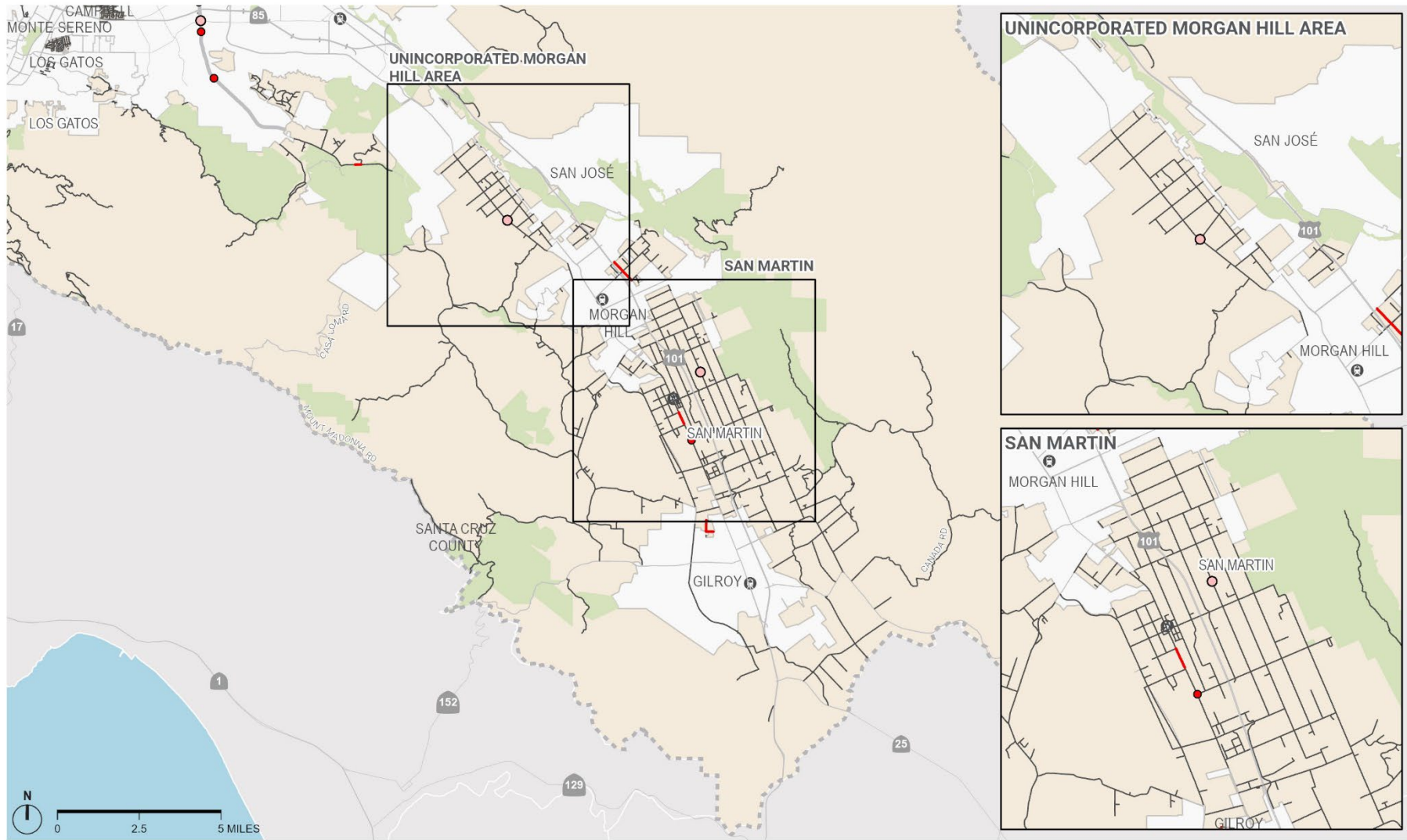
- BART Station
- Caltrain Station
- Park
- City Boundary
- Unincorporated Area
- Santa Clara County

FATAL AND SERIOUS INJURY COLLISIONS (NUMBER OF INTERSECTION & ROADWAY COLLISIONS)

- Intersection Collisions
- Roadway Collisions
- Fatalities at Intersections
- Fatalities on Road Segments
- Serious Injuries at Intersections



Figure 35. Pedestrian fatal and serious injury collisions (2015-2020)



PEDESTRIAN FATAL AND SERIOUS INJURY COLLISIONS

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

Kimley **Horn** Source: Santa Clara County, VTA, US Census, Esri, July 2021.

EXISTING BIKEWAYS (COUNTY CONTROLLED)

- Class I: Shared-Use Path
- Class II: Bicycle Lane
- Class III: Bicycle Route
- Class IV: Separated Bikeway

FEATURES

- BART Station
- Caltrain Station
- Park
- City Boundary
- Unincorporated Area
- Santa Clara County

FATAL AND SERIOUS INJURY COLLISIONS (NUMBER OF INTERSECTION & ROADWAY COLLISIONS)

- | | |
|-----------------------------------|--|
| Intersection Collisions | Roadway Collisions |
| Fatalities at Intersections | — Fatalities on Road Segments |
| Serious Injuries at Intersections | |



Figure 36. Pedestrian fatal and serious injury collisions (2015-2020)

External Conditions

External conditions, such as environmental factors, that may have contributed to collisions were tabulated for pedestrian collisions. Weather conditions were also analyzed to determine if they have any bearing on the number of pedestrian collisions. Key findings include:

- A significant number (86%) of collisions occurred during clear weather
- Dry road conditions were present for 91% of collisions
- The largest proportion of collisions occurred during the daylight (45%), followed by dark-street light collisions (36%)

Figure 37 through **Figure 39** provide information about weather, road and lighting conditions, with most pedestrian related collisions occurring during clear, dry, and daylight hours.

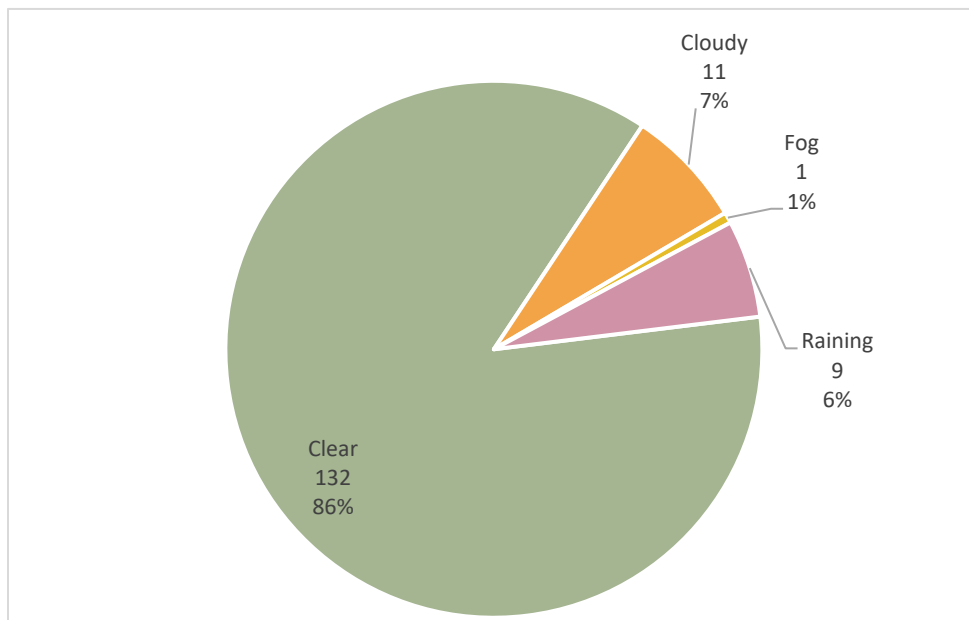


Figure 37. Pedestrian Collisions by weather conditions

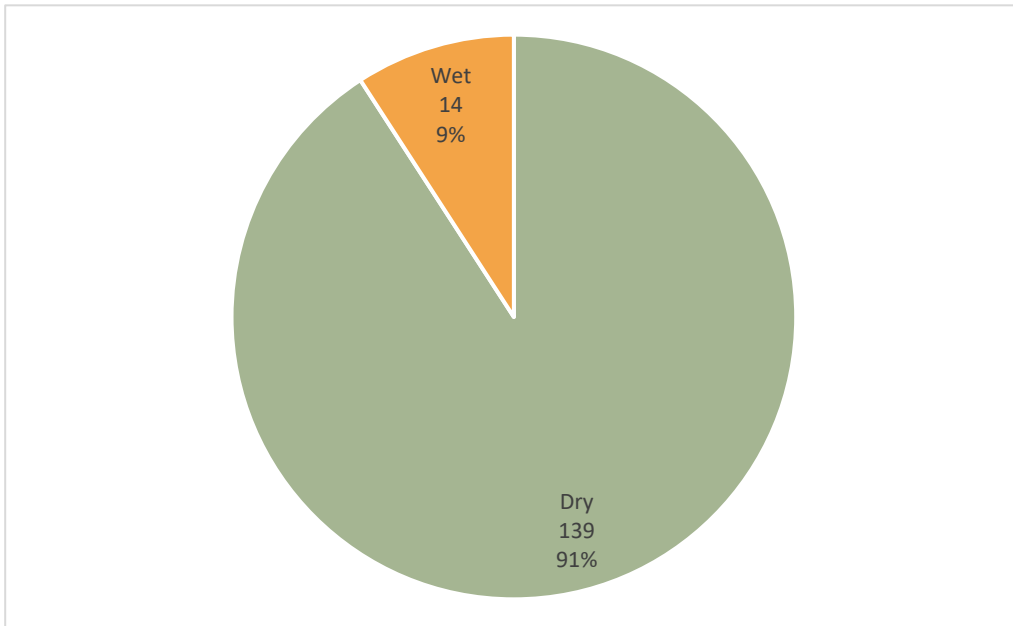


Figure 38. Pedestrian Collisions by road conditions

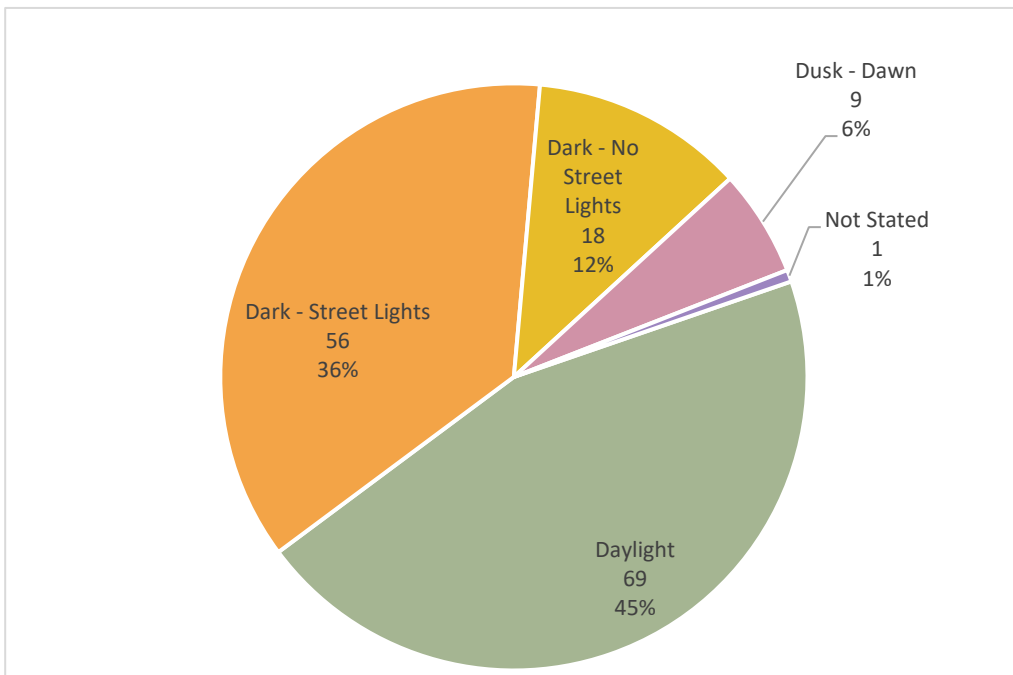


Figure 39. Pedestrian Collisions by lighting conditions

High Injury Network - Pedestrian

The locations with the greatest number of pedestrian collisions were identified. **Table 7** shows the top 10 locations for pedestrian collisions occurring at signalized intersections. **Table 8** provides the top 10 unsignalized intersections registering a high number of pedestrian collisions. **Table 9** shows this information for collisions that occur along roadway corridors.

As found by the analysis, wide roadways with multiple lanes of traffic, as well as those those with very limited crossing opportunities, such as expressways, pose greater challenges for pedestrians. These roadways also often have free right-turns or ‘pork-chop islands’ that result in higher vehicle turning speeds. **Figure 40** and **Figure 41** denote the geographic location of high injury pedestrian related collisions throughout. County corridors and intersections

Table 7. Top high collision intersections (Signalized)

Rank	Signalized Intersections	Fatal	Serious	Other*	Total
1	Almaden Expwy and Blossom Hill Rd	0	1	5	6
2	Almaden Expwy and Cherry Ave	0	0	6	6
3	Capitol Expwy and Senter Rd	1	1	4	6
4	Capitol Expwy and Story Rd	1	2	3	6
5	Capitol Expwy and Seven Trees Blvd	0	0	5	5
6	Almaden Expwy and Via Monte Dr	1	0	2	3
7	Snell Ave and Capitol Expwy	0	1	2	3
8	Capitol Expwy and McLaughlin Ave	0	0	2	2
9	Capitol Expwy and Silver Creek Road	0	0	2	2
10	Montague Expwy and De La Cruz Blvd	0	0	2	2

Table 8. Top high collision intersections (Unsignalized)

Rank	Unsignalized Intersections	Fatal	Serious	Other*	Total
1	S Bascom Ave and Elliott St	0	1	6	7
2	McKee Rd and Ridge Vista Ave	0	0	4	4
3	Capitol Expwy and Capitol Expwy Frontage Rd	0	1	1	2
4	Campus Drive East and Mayfield Ave**	0	1	1	2
5	Monterey Rd and Church Ave	1	0	0	1
6	E San Martin Ave and Lincoln Ave	0	0	1	1
7	Columbet Ave and Manning Ct	0	1	0	1
8	Miramonte Ave and Hale Ave	0	1	0	1
9	Almaden Expwy and Cloverhill Dr	1	0	0	1

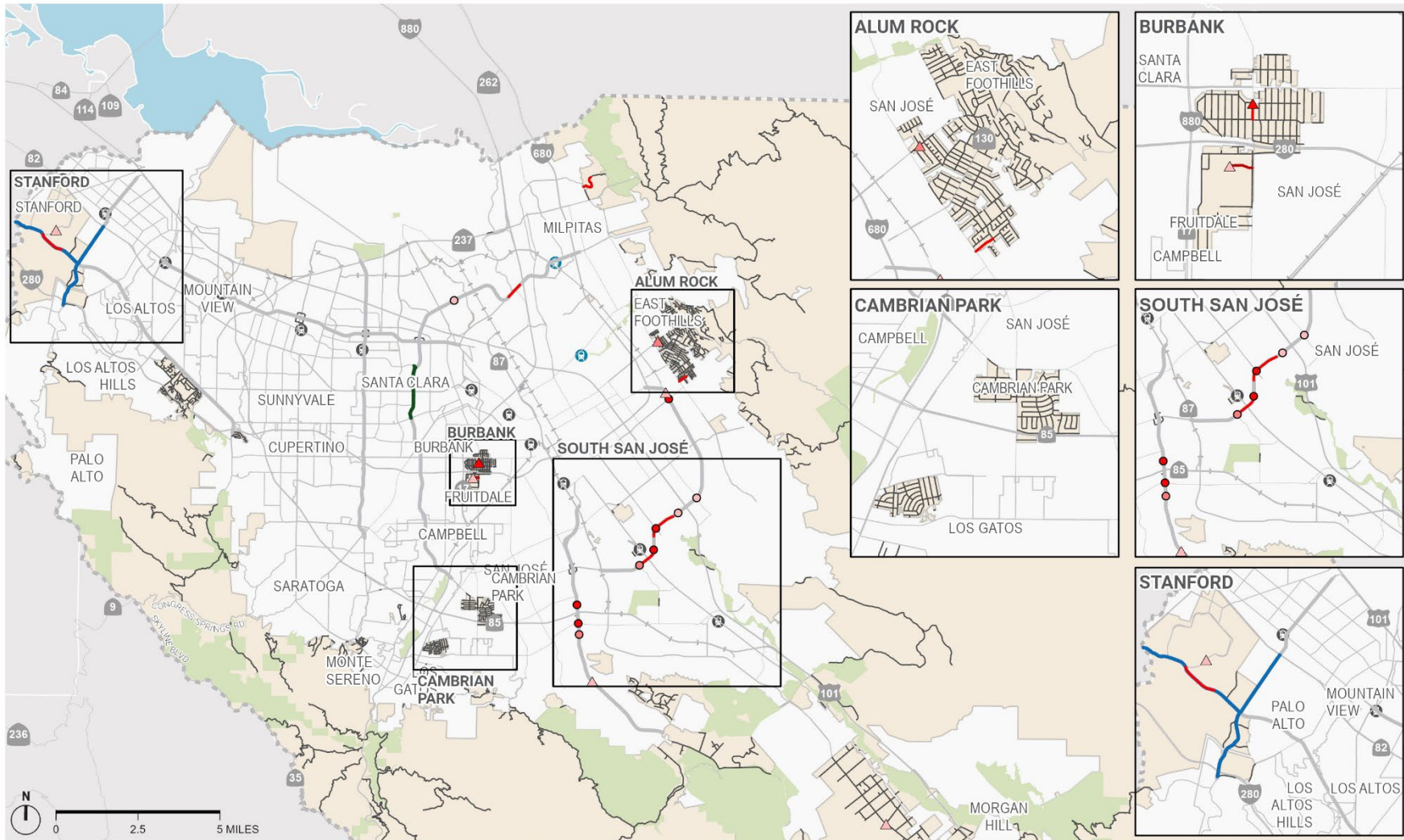
*Other denotes all collisions that were not denoted as fatal or causing serious injury.

** not county maintained

Table 9. Top high collision roadway segments

Rank	Roadway Segments	Fatal	Serious	Other*	Total
1	Buckner Dr	0	1	1	2
2	Bascom Ave	1	0	1	2
3	Capitol Expwy	0	0	2	2
4	Capitol Expwy	0	2	0	2
5	Capitol Expwy	1	0	1	2
6	Junipero Serra Blvd	0	1	1	2
7	Old Calaveras Rd	0	0	1	1
8	Montague Expwy	1	0	0	1

*Other denotes all collisions that were not counted as fatal or causing serious injury.



PEDESTRIAN HIGH INJURY NETWORK

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

Source: Santa Clara County, VTA, US Census, Esri, July 2021.

Kimley-Horn

EXISTING BIKEWAYS (COUNTY CONTROLLED)

- Class I: Shared-Use Path
- Class II: Bicycle Lane
- Class III: Bicycle Route
- Class IV: Separated Bikeway

FEATURES

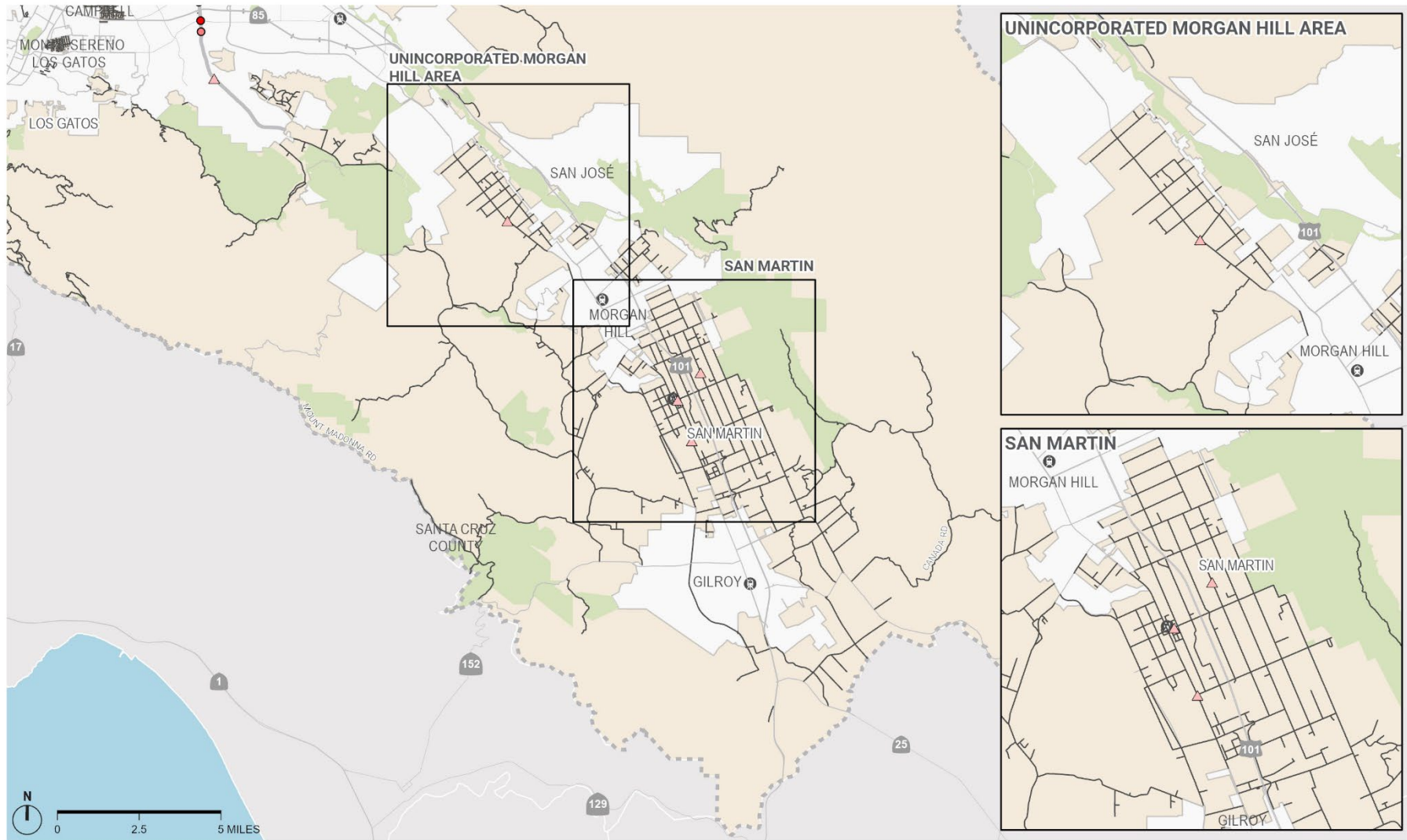
- BART Station
- Caltrain Station
- Park
- City Boundary
- Unincorporated Area
- Santa Clara County

PEDESTRIAN HIGH INJURY NETWORK (TOP NUMBER OF INTERSECTION & ROADWAY COLLISIONS)

- | | |
|-----------------------------|-------------------------------|
| Top Signalized Intersection | Top Unsignalized Intersection |
| 2 | 1 - 2 |
| 3 - 4 | 3 - 4 |
| 5 - 6 | 5 - 7 |
| Top Roadway Segments | |
| 1 - 2 | |
| 3 - 4 | |



Figure 40. Pedestrian High Injury Network



PEDESTRIAN HIGH INJURY NETWORK

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

Source: Santa Clara County, VTA, US Census, Esri, July 2021.

Kimley-Horn

EXISTING BIKEWAYS (COUNTY CONTROLLED)

- Class I: Shared-Use Path
- Class II: Bicycle Lane
- Class III: Bicycle Route
- Class IV: Separated Bikeway

FEATURES

- BART Station
- Caltrain Station
- Park
- City Boundary
- Unincorporated Area
- Santa Clara County

PEDESTRIAN HIGH INJURY NETWORK (TOP NUMBER OF INTERSECTION & ROADWAY COLLISIONS)

- | | |
|-----------------------------|-------------------------------|
| Top Signalized Intersection | Top Unsignalized Intersection |
| 2 | 1-2 |
| 3-4 | 3-4 |
| 5-6 | 5-7 |

Top Roadway Segments

1-2



Figure 41. Pedestrian high injury network (2015-2020)

Bicycle Collisions

From 2015 to 2020, 201 bicycle collisions occurred within the County. This section focuses on collisions involving people biking and identifies trends from those collisions.

Time Period

The bicycle collisions that occurred on County roadways were analyzed based on the year, month, day of week, and hour that they occurred. The number of bicycle related collisions by year can be found in **Figure 42**. The highest number of collisions occurred in 2015, with 54 total collisions. This is followed by the lowest number of collisions in 2020, with 19. There was a decline in bicycle related collisions from 2015 to 2020, as seen in the trendline in the figure.

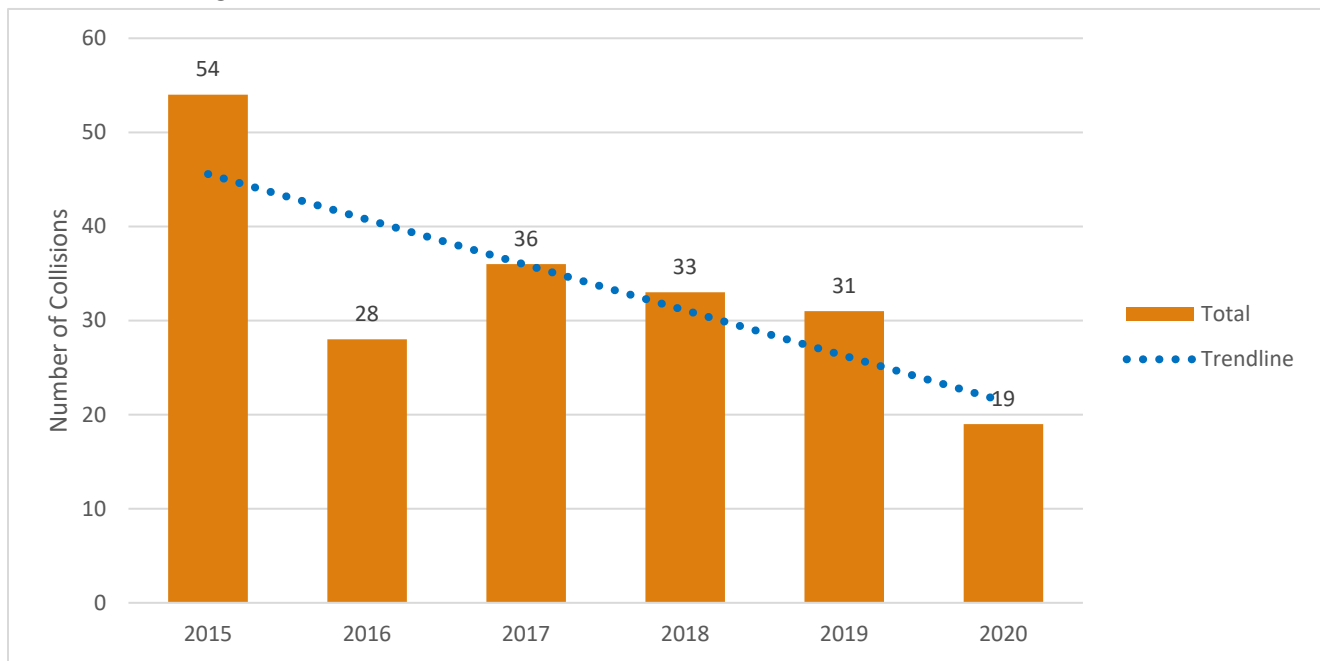


Figure 42. Bicyclist Collisions by Year

Figure 43 shows the number of bicycle related collisions by month. August and September saw the highest number of collisions per month with a total of 24 each month. The month with the least amount of collisions is December with 7, followed by March with 9. Contrary to the pedestrian collision trends, the winter months of December to February saw the lowest number of collisions during that time of year, with an average of 12 collisions per month.

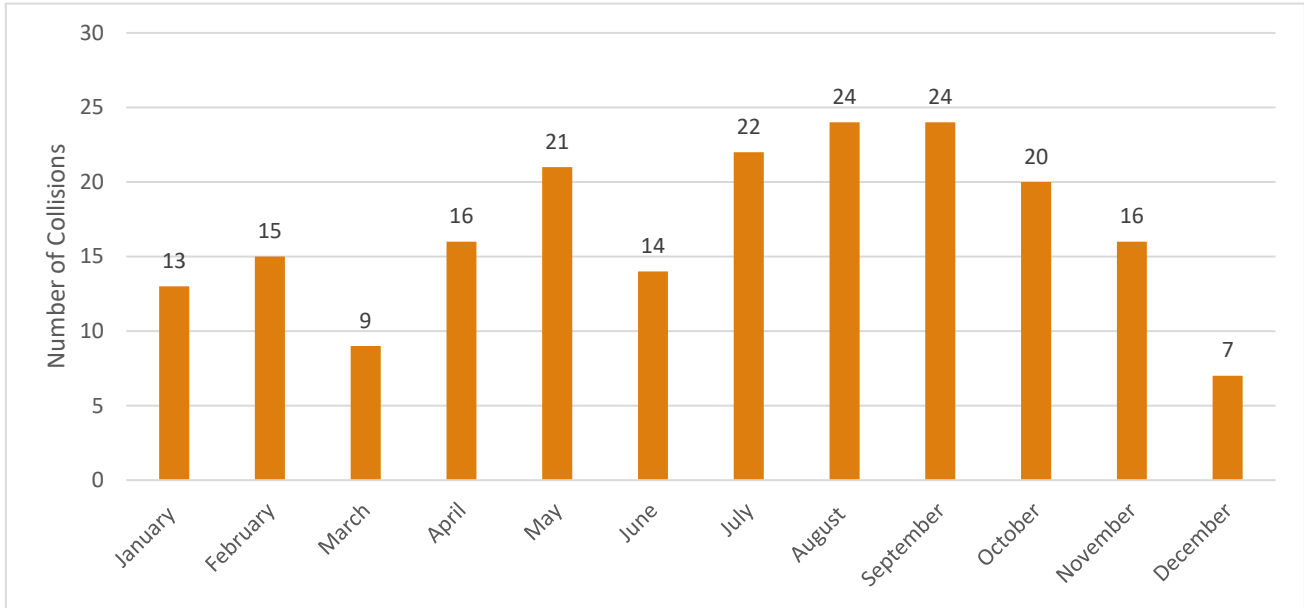


Figure 43. Bicyclist collisions by month

Figure 44 shows the number of collisions by day of the week. As noted, weekend days generally experience a lower number of collisions with an average of 23 collisions per day in comparison to weekdays, which experience an average of 31 collisions per day.

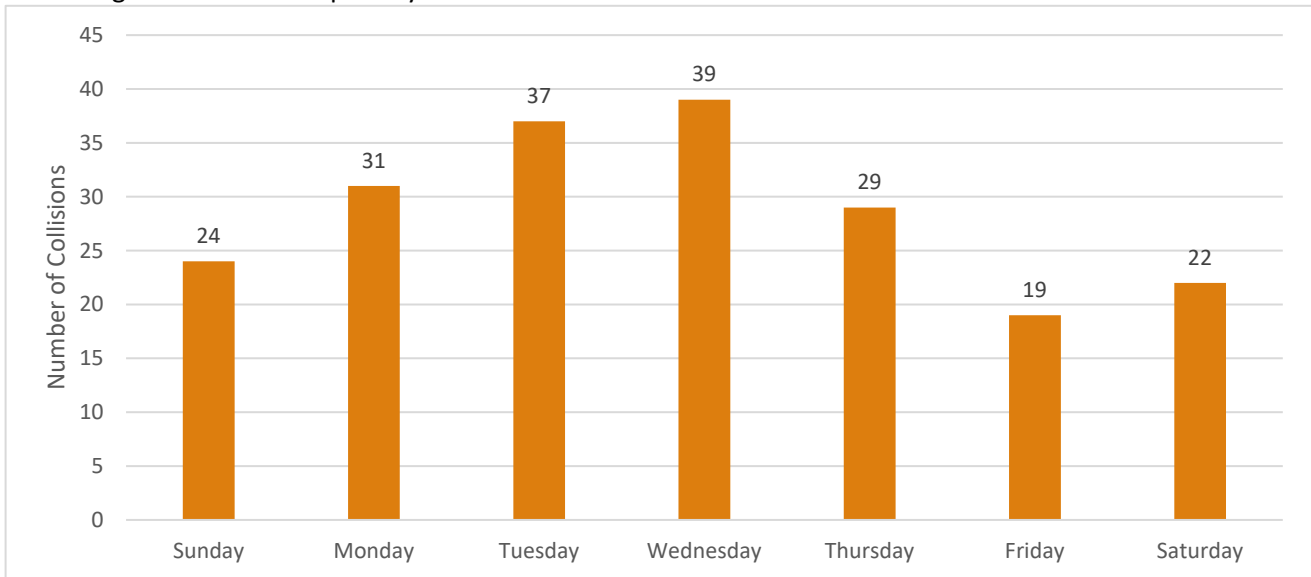


Figure 44. Bicycle collisions by day of the week

Figure 45 shows the number of collisions peaks generally during the afternoon and evening periods. The highest number of collisions occurred during the evening peak commuting periods of 4 p.m.-6 p.m.

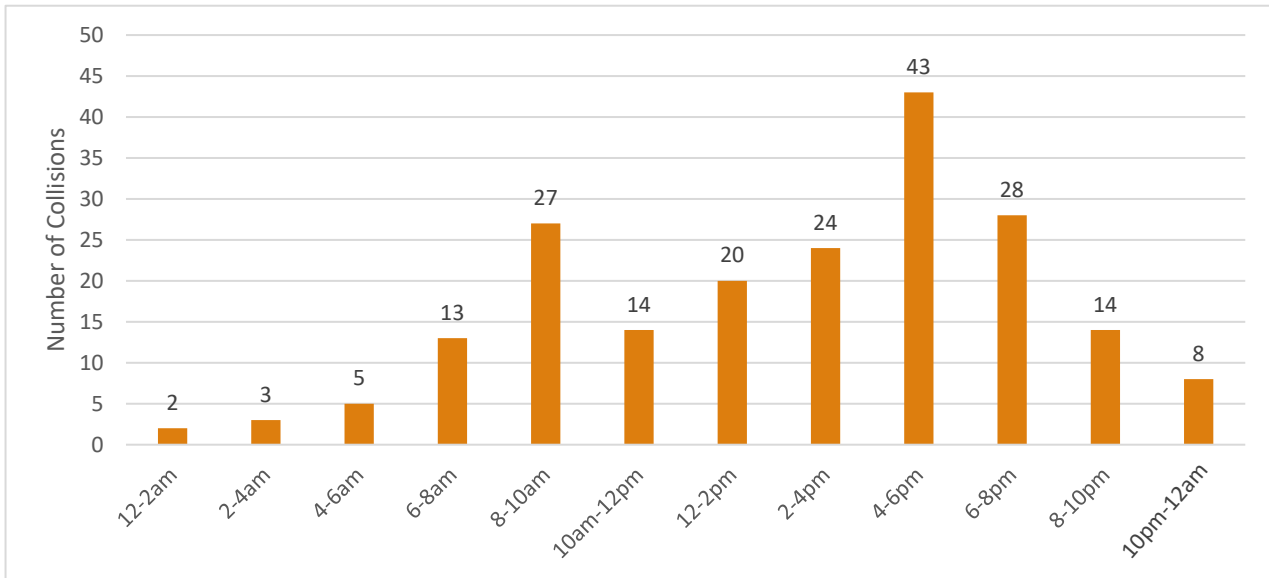
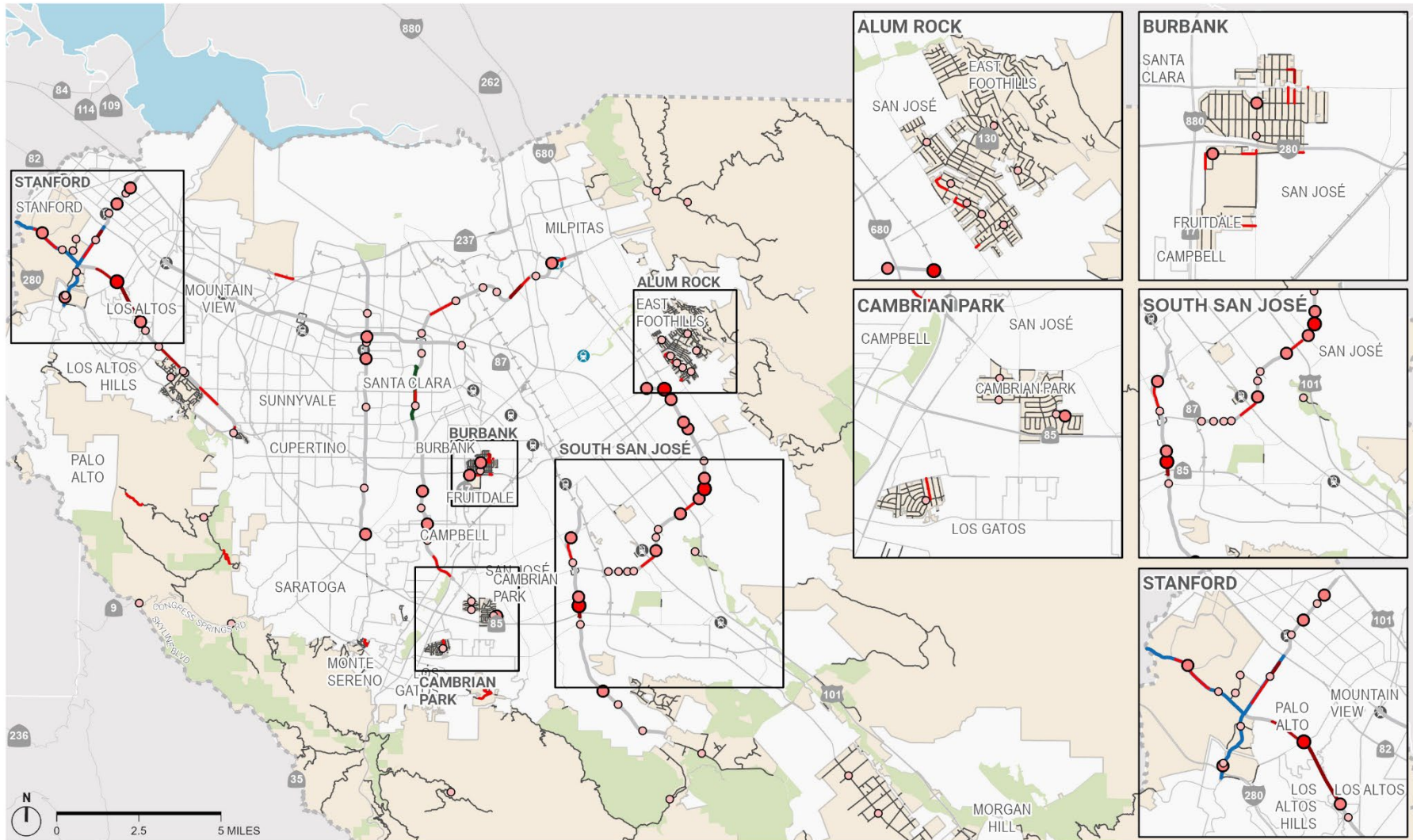


Figure 45. Bicycle collisions by time of day



BICYCLE COLLISIONS

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

Source: Santa Clara County, VTA, US Census, Esri, July 2021.

Kimley»Horn

EXISTING BIKEWAYS (COUNTY CONTROLLED)

- Class I: Shared-Use Path
- Class II: Bicycle Lane
- Class III: Bicycle Route
- Class IV: Separated Bikeway

FEATURES

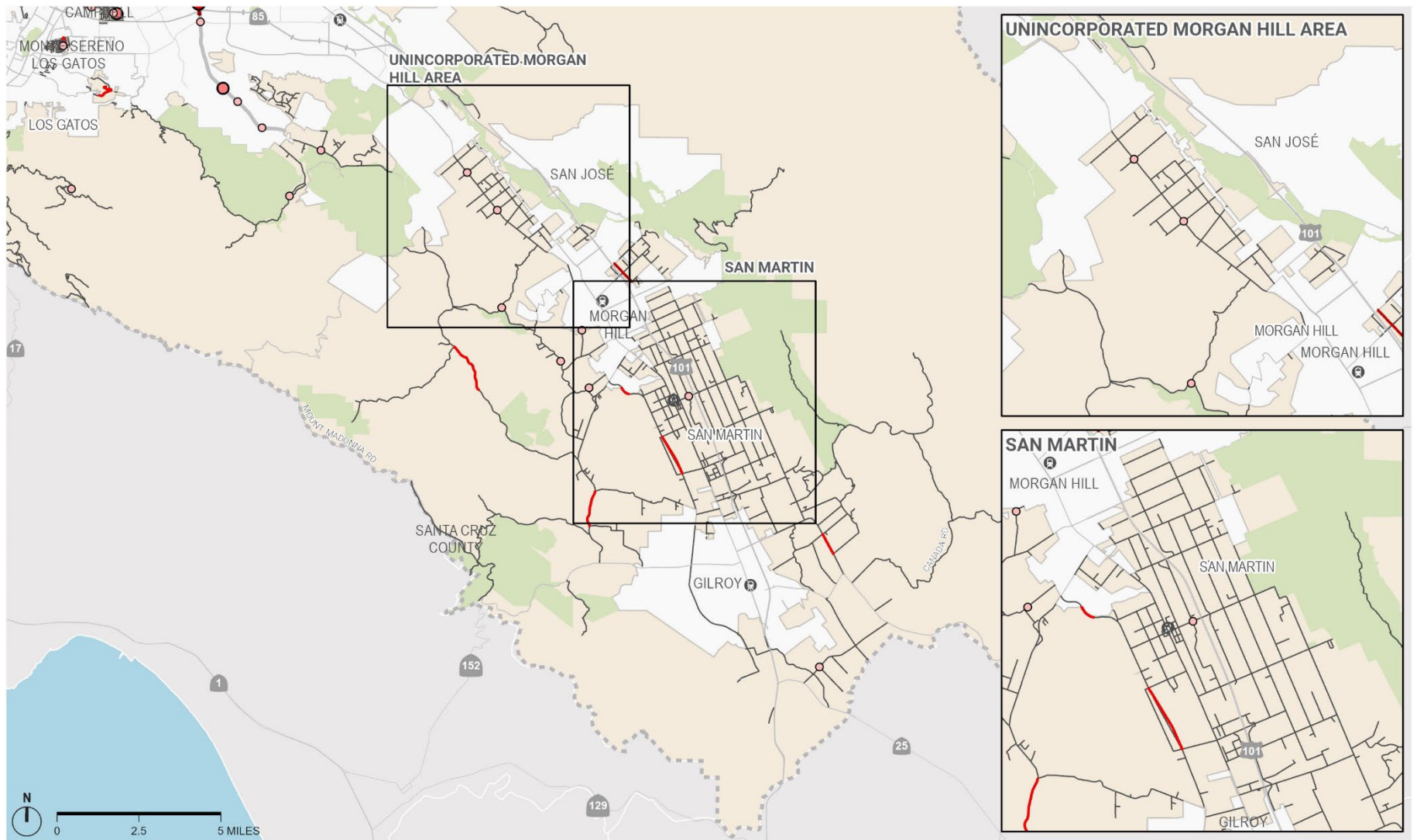
- BART Station
- Caltrain Station
- Park
- City Boundary
- Unincorporated Area
- Santa Clara County

ALL BICYCLE COLLISIONS (NUMBER OF INTERSECTION & ROADWAY COLLISIONS)

- | Intersection Collisions | Roadway Collisions |
|-------------------------|--------------------------------------|
| 1 | — 1 |
| 2 - 3 | — 2 |
| 4 - 6 | — 3 |



Figure 46: Bicycle collisions (2015-2020)



BICYCLE COLLISIONS

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

Source: Santa Clara County, VTA, US Census, Esri, July 2021.

EXISTING BIKEWAYS (COUNTY CONTROLLED)

- Class I: Shared-Use Path
- Class II: Bicycle Lane
- Class III: Bicycle Route
- Class IV: Separated Bikeway

FEATURES

- BART Station
- Caltrain Station
- Park
- City Boundary
- Unincorporated Area
- Santa Clara County

ALL BICYCLE COLLISIONS (NUMBER OF INTERSECTION & ROADWAY COLLISIONS)

- | | |
|-------------------------|--------------------|
| Intersection Collisions | Roadway Collisions |
| 1 | 1 |
| 2 - 3 | 2 |
| 4 - 6 | 3 |



Figure 47. Bicycle collisions (2015-2019)

Party at Fault

Figure shows the party at fault for all of the bicycle related collisions that occurred in the specified timeframe. The majority (55%) of the collisions were registered as the motorist at fault.

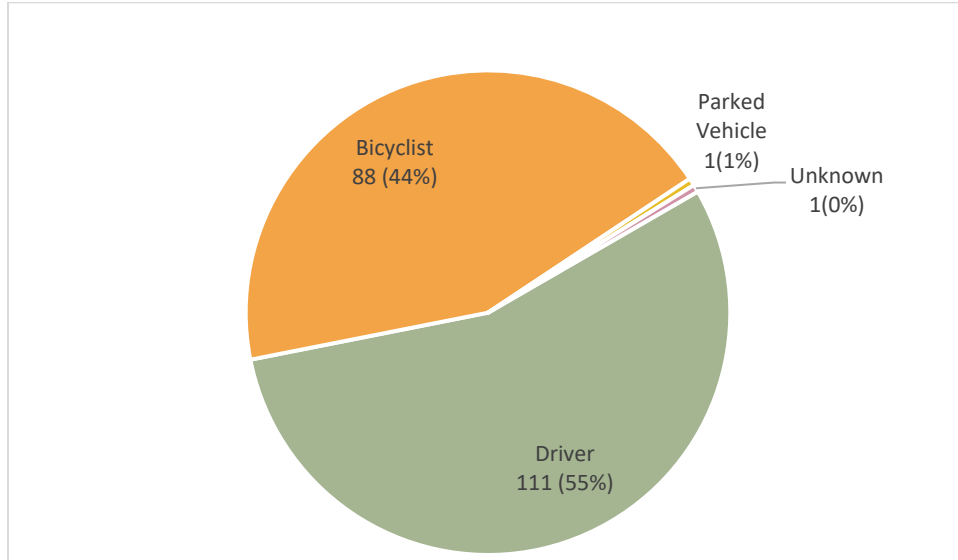


Figure 48. Party at fault for all bicycle collisions

Severity

Four percent (7%) of bicycle collisions resulted in fatalities while 12% percent resulted in severe injuries. Forty-three percent (42%) resulted in other injuries, while just 5% percent resulted in property damage only. This breakdown can be found in Figure.

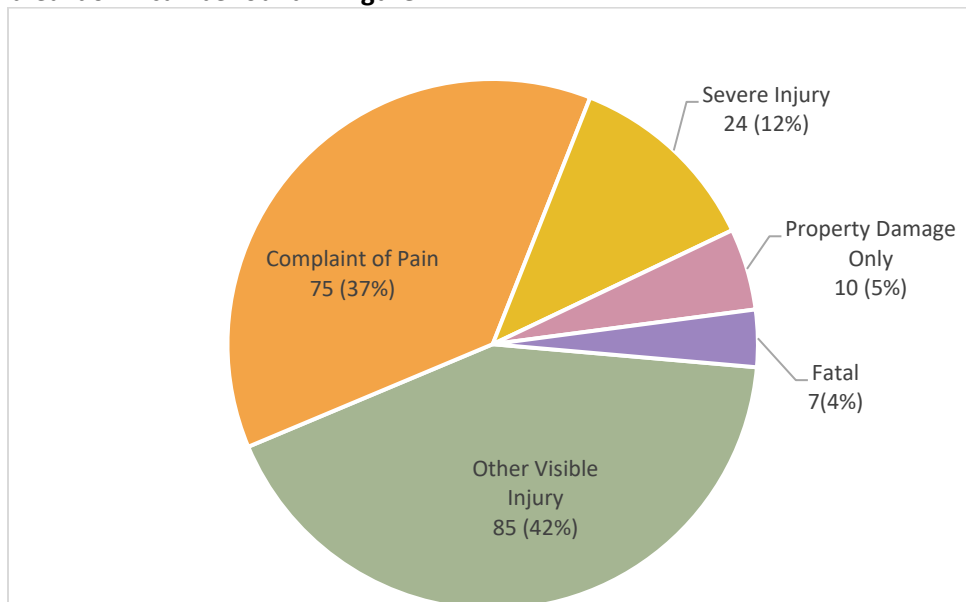


Figure 49. Bicycle collisions by severity

Primary Collision Factor

The most common primary collision factor in bicycle collisions was automobile right-of-way violation (20%), followed by improper turning (16%). The full breakdown of primary collision factors is shown in **Figure 50**.

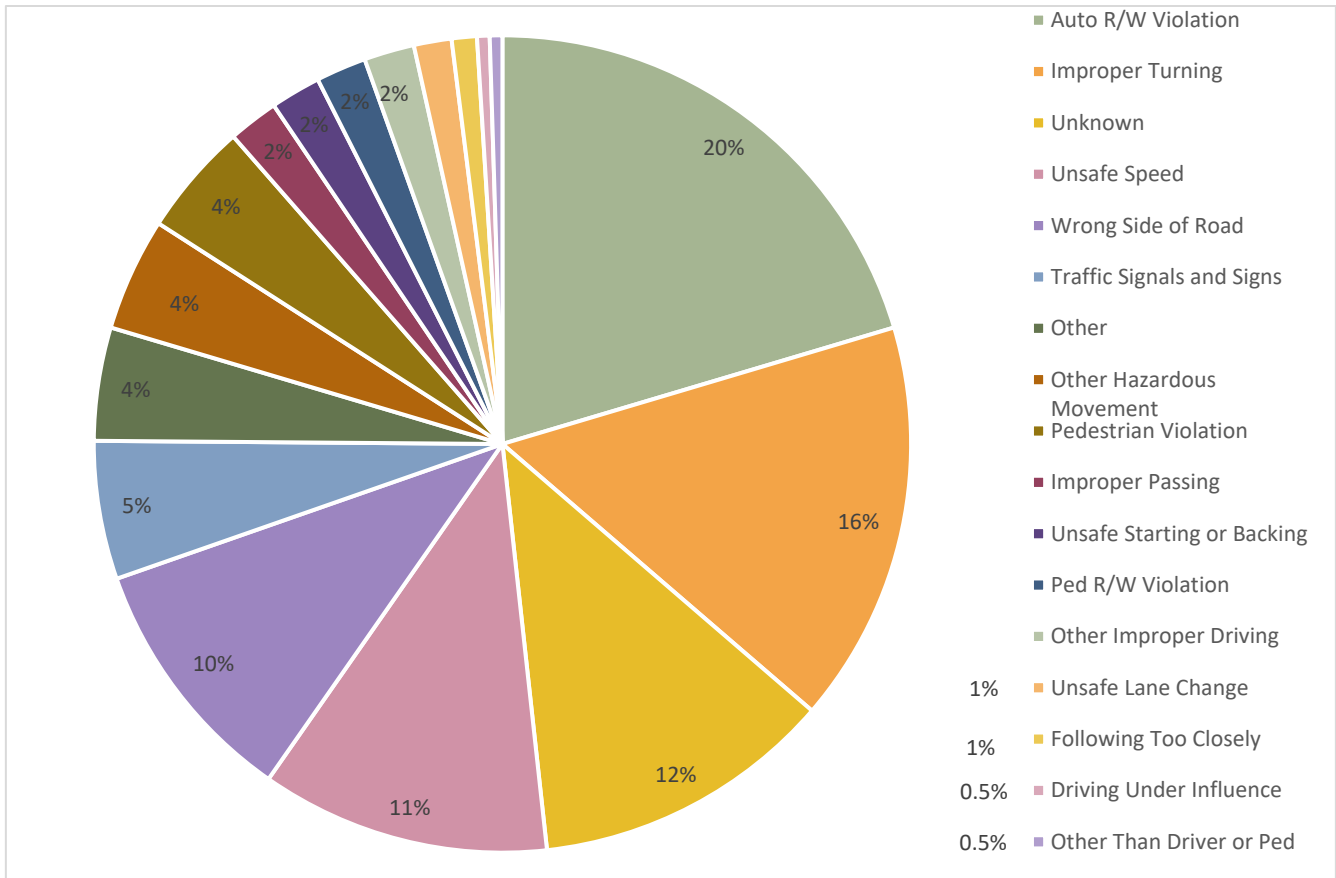


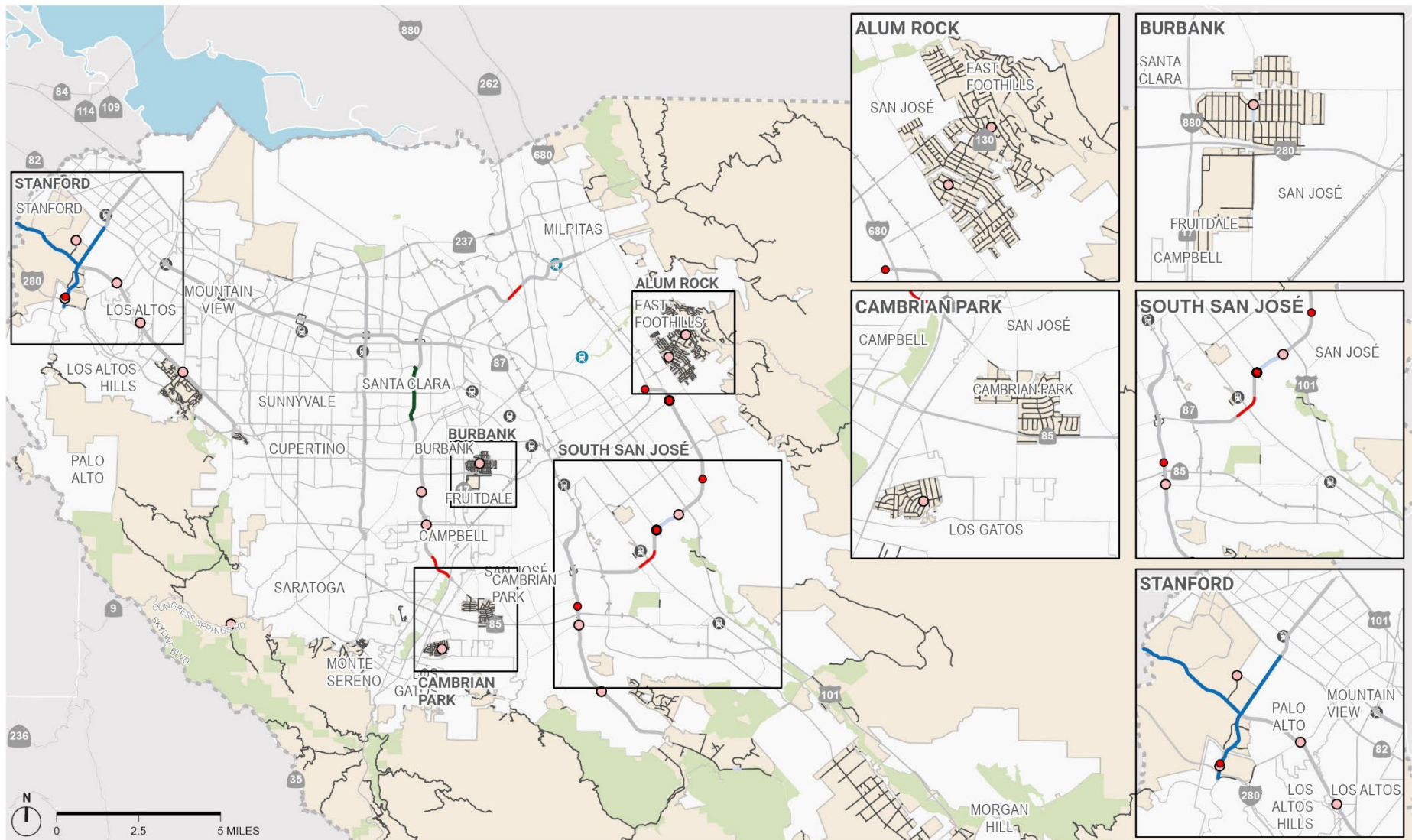
Figure 30. Primary collision factor

Table 10. Fatal bicycle collisions by cause

Cause	Count
Driving Under Influence	1
Improper Turning	1
Other Improper Driving	1
Pedestrian Violation	1
Unsafe Speed	1
Unsafe Starting or Backing	1
Wrong Side of Road	1
TOTAL	7

The cause for all fatal bicycle collisions was also investigated to determine any patterns or trends. A total of 7 bicyclist fatalities were recorded. These are shown in **Table 10**.

The locations of the pedestrian fatal and serious injury collisions are shown in **Figure 51** and **Figure 52**.



BICYCLE FATAL AND SERIOUS INJURY COLLISIONS

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

EXISTING BIKEWAYS (COUNTY CONTROLLED)

- Class I: Shared-Use Path
- Class II: Bicycle Lane
- Class III: Bicycle Route
- Class IV: Separated Bikeway

FEATURES

- BART Station
- Caltrain Station
- Park
- City Boundary
- Unincorporated Area
- Santa Clara County

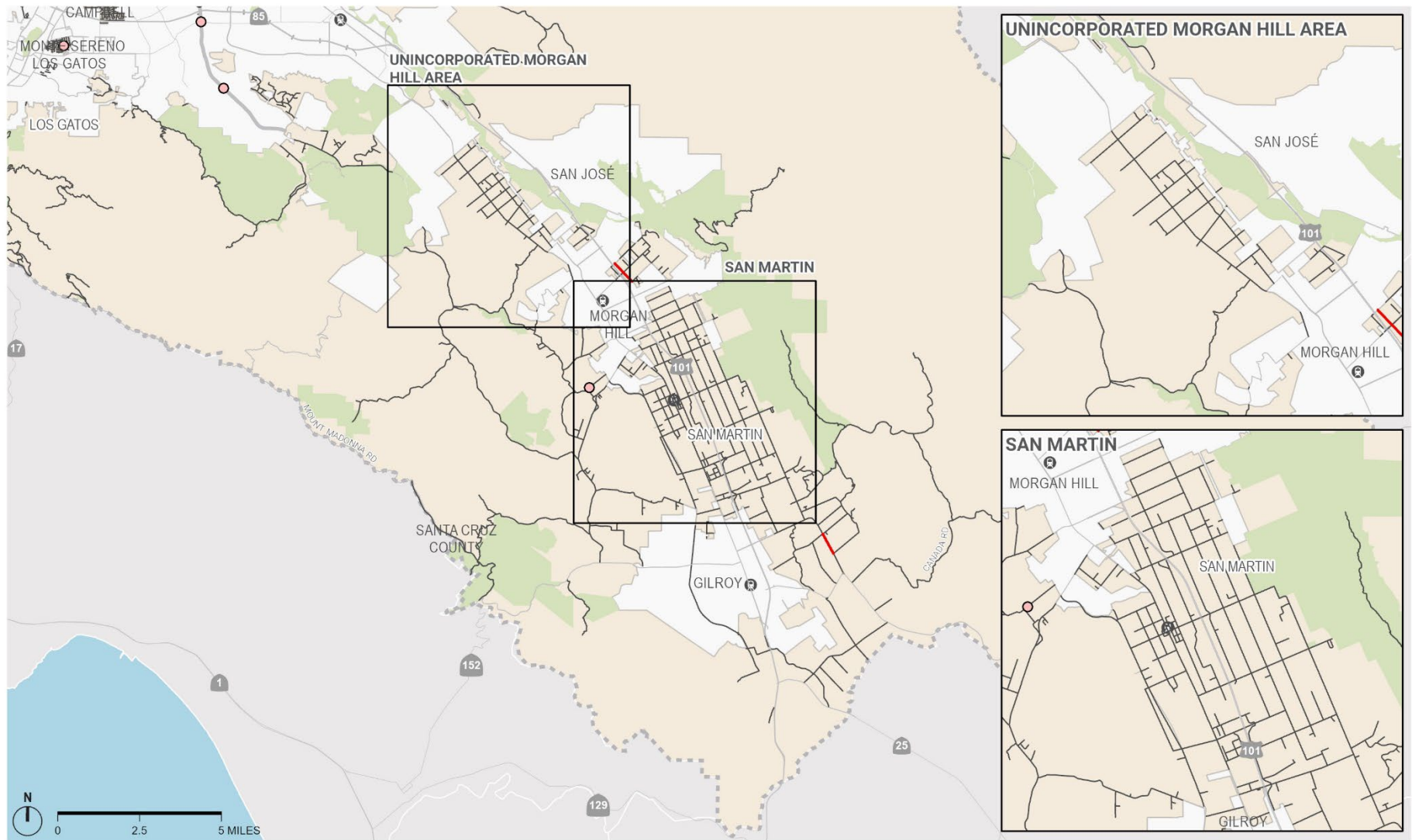
FATAL AND SERIOUS INJURY COLLISIONS (NUMBER OF INTERSECTION & ROADWAY COLLISIONS)

- | | |
|-----------------------------------|-----------------------------|
| Fatalities at Intersections | Fatalities on Road Segments |
| Serious Injuries at Intersections | |

Source: Santa Clara County, VTA, US Census, Esri, July 2021.

Kimley»Horn

Figure 51. Bicycle fatal and serious injury collisions (2015-2020)



BICYCLE FATAL AND SERIOUS INJURY COLLISIONS

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

Source: Santa Clara County, VTA, US Census, Esri, July 2021.

- EXISTING BIKEWAYS (COUNTY CONTROLLED)**
- Class I: Shared-Use Path
 - Class II: Bicycle Lane
 - Class III: Bicycle Route
 - Class IV: Separated Bikeway

- FEATURES**
- BART Station
 - Caltrain Station
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 - Unincorporated Area
 - Santa Clara County

- FATAL AND SERIOUS INJURY COLLISIONS (NUMBER OF INTERSECTION & ROADWAY COLLISIONS)**
- | | |
|-------------------------------------|-------------------------------|
| Intersection Collisions | Roadway Collisions |
| ● Fatalities at Intersections | — Fatalities on Road Segments |
| ○ Serious Injuries at Intersections | |



Figure 52. Bicycle fatal and serious injury collisions (2015-2020)

External Conditions

External conditions, such as environmental factors, that may have contributed to collisions were tabulated for pedestrian collisions. Weather conditions were also analyzed to determine if they have any bearing on the number of pedestrian collisions. Key findings include:

- A significant number (90%) of collisions occurred during clear weather
- Dry road conditions were present for 96% of collisions
- The largest proportion of collisions occurred during the daylight (74%), followed by dark-street light collisions (15%)

Figure 53 through **Figure 55** show the number of bicycle collisions by weather, pavement condition, and lighting.

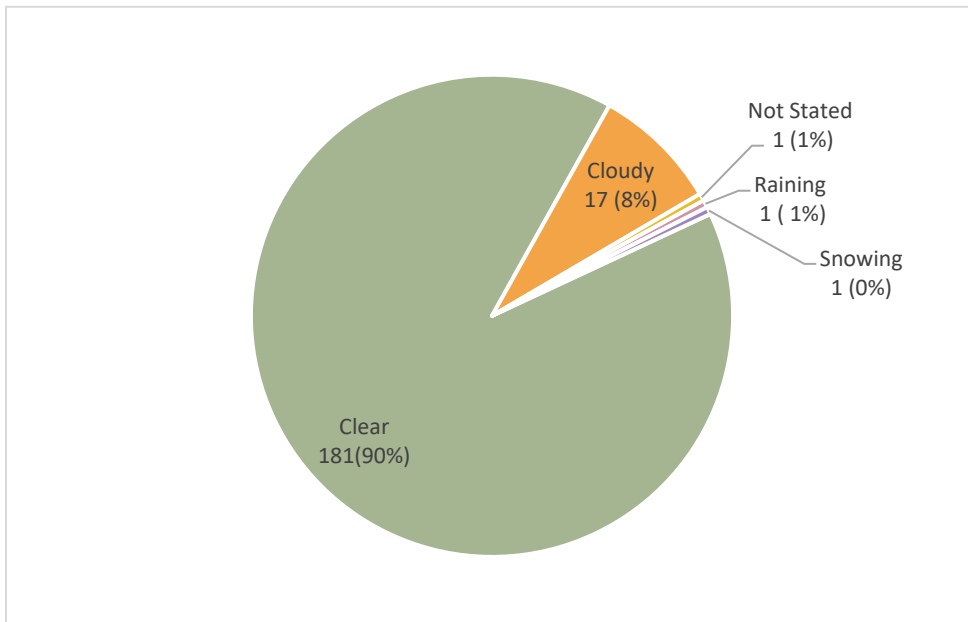


Figure 53. Bicycle collisions by weather conditions

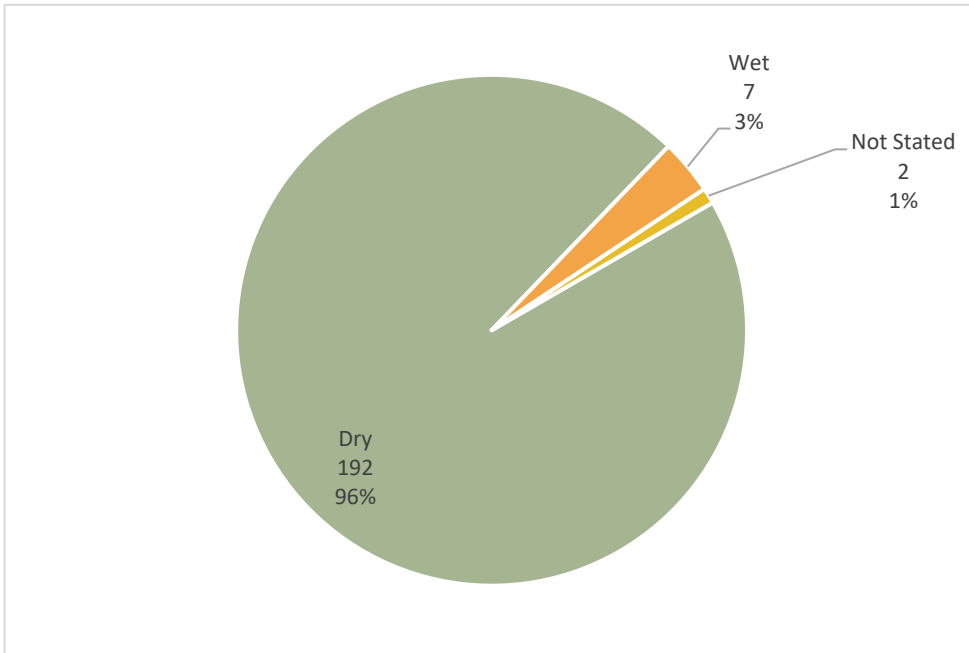


Figure 54. Bicycle collisions by pavement conditions

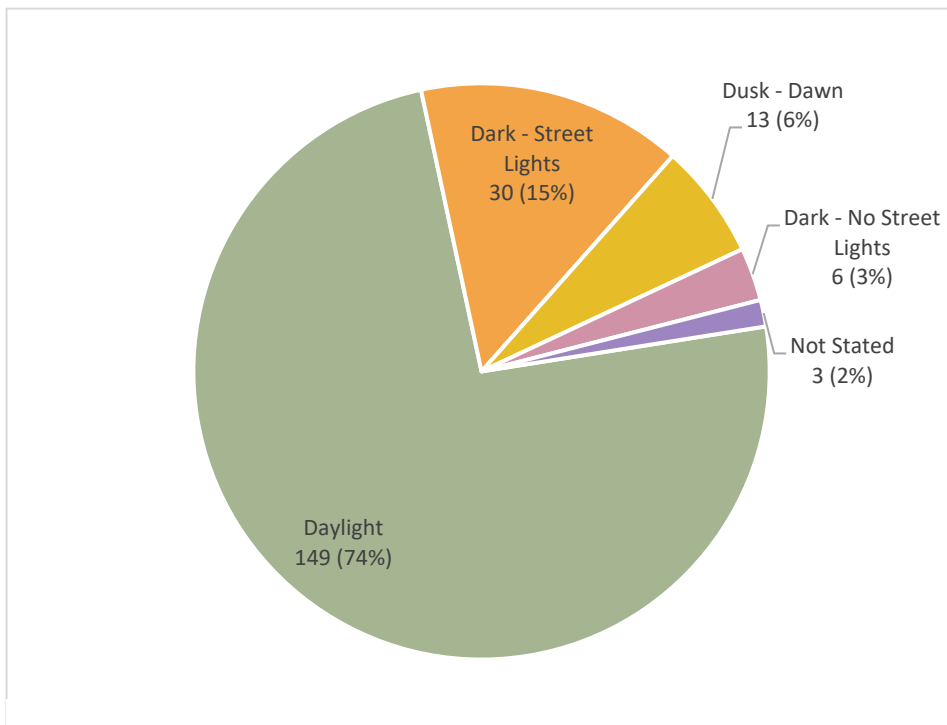
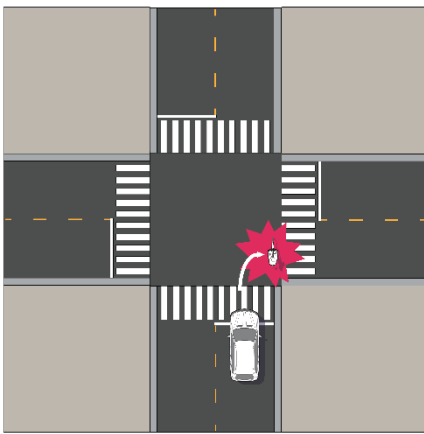


Figure 55. Bicycle collisions by lighting

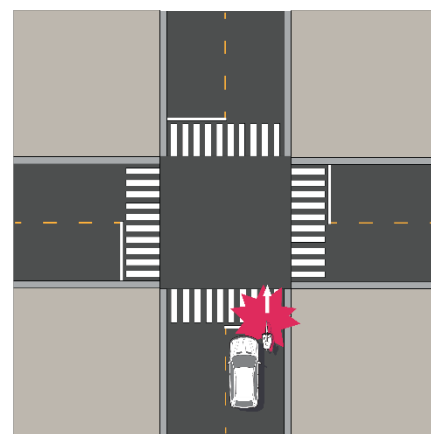
Collision Type

The collision type is usually indicated on a collision report, providing insight into potential causes of an incident occurring. For bicyclists these include:

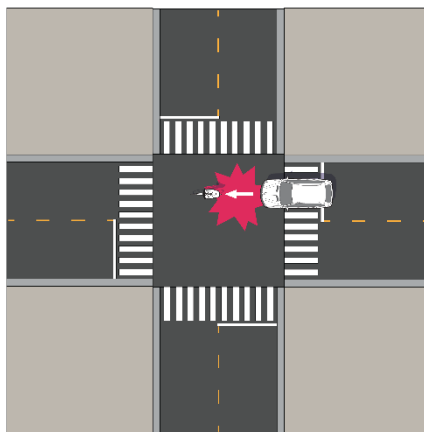
- **Broadside collisions** occur when a bicyclist and a vehicle collide at the side of the vehicle or at the side of the bicyclist. Injuries are often serious for bicyclists due to their sudden deceleration upon being hit by the vehicle.
- **Sideswipe Collisions** occur when both a vehicle and a bicyclist collide at their sides.
- **Rear-End Collisions** are collisions where a bicyclist or a vehicle is struck in the rear by the front side of the opposite party.
- **Head-On Collisions** involve both the bicyclist and vehicle colliding at their front sides.



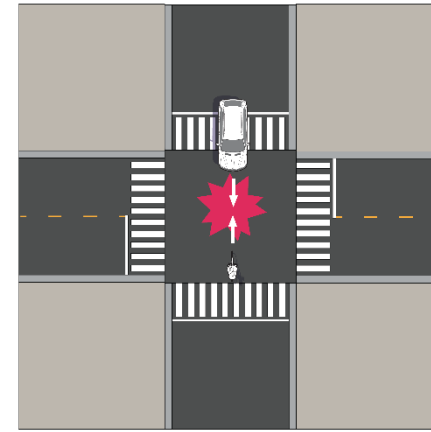
Broadside Collision



Sideswipe Collision



Rear-End Collision



Head-On Collision

The highest number of bicycle related collisions were broadside collisions at 38% , followed by sideswipes (19%) and rear-end (16%) collisions (see **Figure 56. Bicycle collisions by collision type**

Figure56).

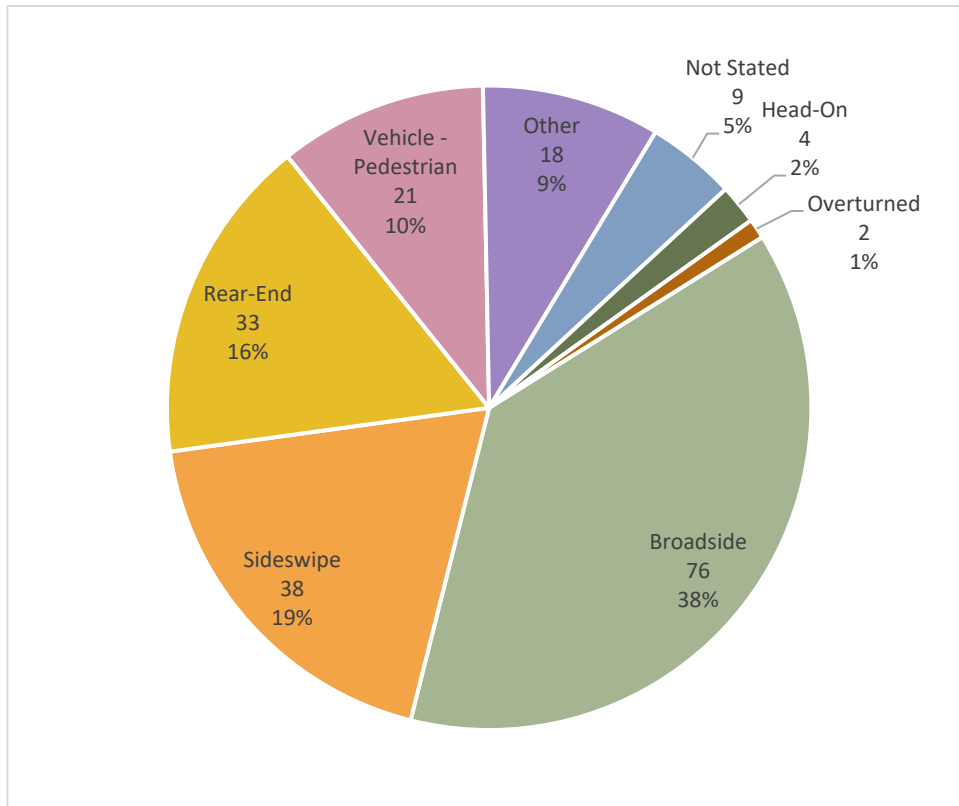


Figure 56. Bicycle collisions by collision type

High Injury Network - Bicycles

Table 11 which shows the top 10 signalized intersections for bicycle related collisions. As shown in the table, signalized intersections with the greatest number of bicycle collisions are within the expressway network. **Table 12** shows the top 10 intersections for collisions at unsignalized intersections. These locations are generally located along the local roadways. Similarly, **Table 13** shows this information for collisions that along corridors. **Figure 57** and **Figure 58** denote the geographic location of high injury bicycle related collisions throughout County corridors and intersections.

Table 11. Top high collision intersections (signalized)

Rank	Signalized Intersections	Fatal	Serious	Other*	Total
1	Almaden Expwy and Cherry Ave	1	0	5	6
2	Foothill Expwy and Arastradero Rd	0	0	5	5
3	Aborn Rd and Capitol Expwy	0	0	4	4
4	Capitol Expwy and S Capitol Ave	0	0	4	4
5	Capitol Expwy and McLaughlin Ave	0	1	2	3
6	Great Mall Pkwy and Montague Expwy	0	0	3	3
7	Foothill Expwy and W Edith Ave	0	1	2	3
8	Almaden Expwy and Camden Ave	0	1	1	2
9	Almaden Expwy and Branham Ln	0	0	2	2
10	Capitol Expwy and Seven Trees Blvd	0	0	2	2

*Other denotes all collisions that were not denoted as fatal or causing serious injury.

Table 12. Top high collision intersections (unsignalized)

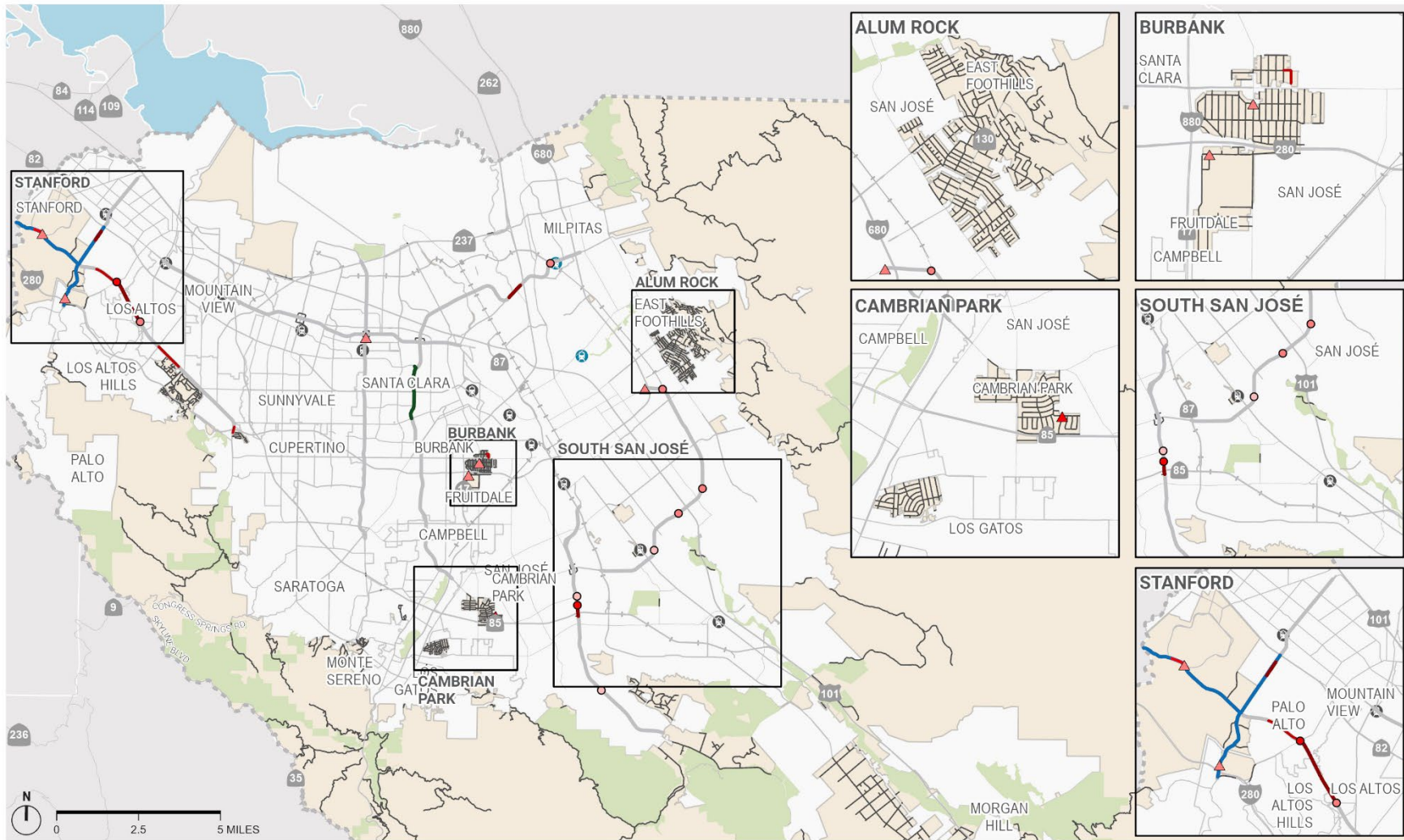
Rank	Unsignalized Intersections	Fatal	Serious	Other*	Total
1	Wyrick Ave and Leigh Ave	0	0	3	3
2	Moorpark Ave and Empey Way	0	0	2	2
3	S Bascom Ave and Elliott St	0	0	2	2
4	Junipero Serra Fwy and Page Mill Rd	1	1	0	2
5	Junipero Serra Blvd and Campus Drive	0	0	2	2
6	Ryder St and Lawrence Expwy	0	0	2	2
7	Bloomfield Ave and Sheldon Ave	0	0	1	1
8	E San Martin Ave and Murphy Ave	0	0	1	1
9	Sycamore Dr and Perry Ln	0	1	0	1

*Other denotes all collisions that were not denoted as fatal or causing serious injury.

Table 13. Top 10 high collision roadways

Rank	Roadway Segment	Fatal	Serious	Other*	Total
1	Montague Expwy	1	0	2	3
2	Almaden Expwy	0	0	3	3
3	Page Mill Rd	0	0	3	3
4	Foothill Expwy	0	0	3	3
5	Foothill Expwy	0	0	2	2
6	Wabash Ave	0	0	2	2
7	Condit Rd	0	1	1	2
8	Foothill Expwy	0	0	1	1
9	Foothill Expwy	0	1	0	1
10	Junipero Serra Blvd	0	1	0	1

*Other denotes all collisions that were not denoted as fatal or causing serious injury.



BICYCLE HIGH INJURY NETWORK

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

Source: Santa Clara County, VTA, US Census, Esri, July 2021.

Kimley-Horn

EXISTING BIKEWAYS (COUNTY CONTROLLED)

- Class I: Shared-Use Path
- Class II: Bicycle Lane
- Class III: Bicycle Route
- Class IV: Separated Bikeway

FEATURES

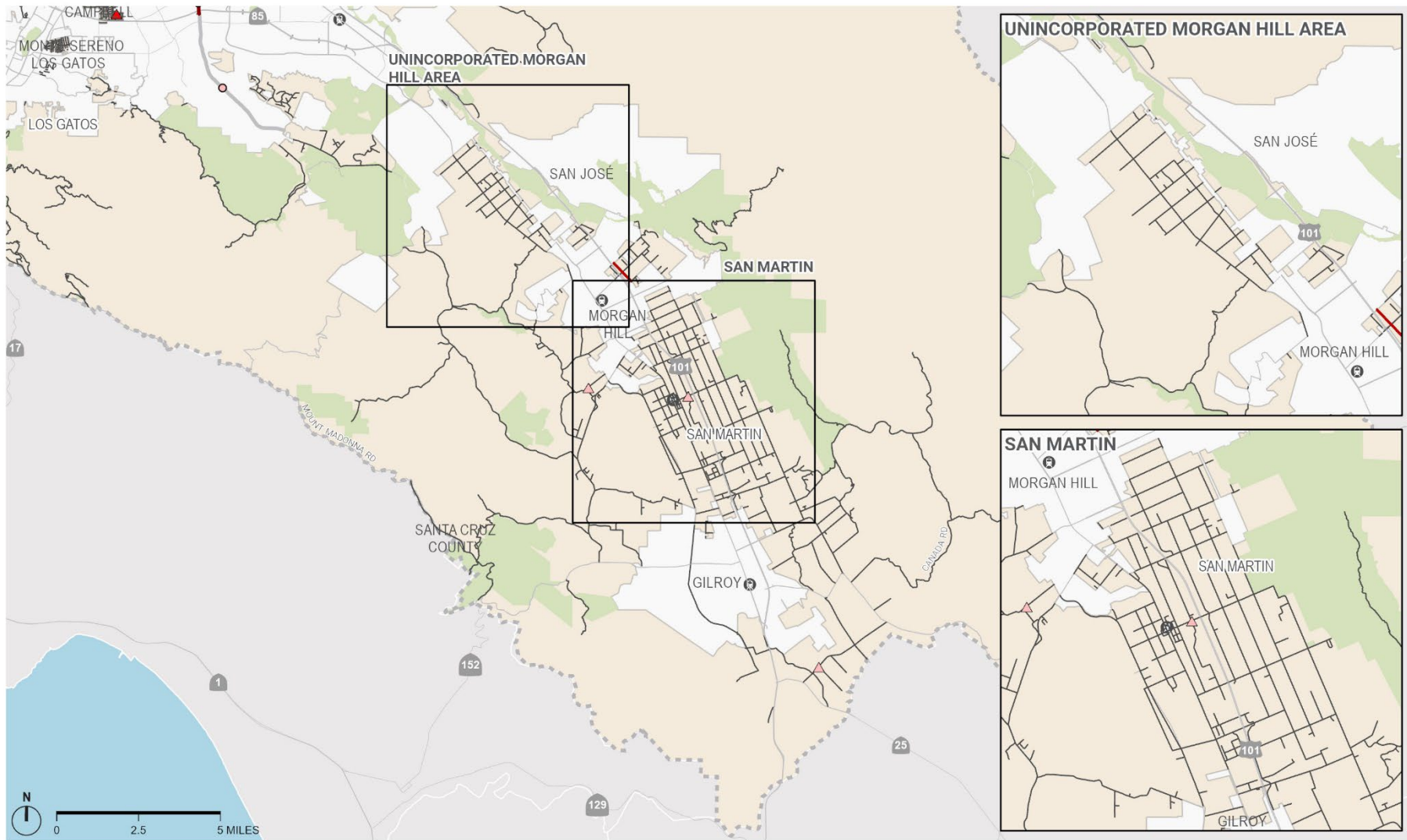
- BART Station
- Caltrain Station
- Park
- City Boundary
- Unincorporated Area
- Santa Clara County

BICYCLE HIGH INJURY NETWORK (TOP NUMBER OF INTERSECTION & ROADWAY COLLISIONS)

- | | |
|-----------------------------|-------------------------------|
| Top Signalized Intersection | Top Unsignalized Intersection |
| 2 | 1 |
| 3-4 | 2 |
| 5-6 | 3 |
| Top Roadway Segments | |
| 1 | 3 |
| 2 | |



Figure 57. Bicycle high injury network (2015-2020)



BICYCLE HIGH INJURY NETWORK

SANTA CLARA COUNTY ACTIVE TRANSPORTATION PLAN

Kimley-Horn Source: Santa Clara County, VTA, US Census, Esri, July 2021.

EXISTING BIKEWAYS (COUNTY CONTROLLED)

- Class I: Shared-Use Path
- Class II: Bicycle Lane
- Class III: Bicycle Route
- Class IV: Separated Bikeway

FEATURES

- BART Station
- Caltrain Station
- Park
- City Boundary
- Unincorporated Area
- Santa Clara County

BICYCLE HIGH INJURY NETWORK (TOP NUMBER OF INTERSECTION & ROADWAY COLLISIONS)

- | | |
|-----------------------------|-------------------------------|
| Top Signalized Intersection | Top Unsignalized Intersection |
| 2 | 1 |
| 3 - 4 | 2 |
| 5 - 6 | 3 |
| Top Roadway Segments | |
| 1 | 3 |



Figure 58. Bicycle high injury network (2015-2020)