City of **Rialto**

Safety Action Plan

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City of Rialto

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EXECUTIVE SUMMARY

The City of Rialto Safety Action Plan identifies emphasis areas to inform and guide further safety evaluation of the City's transportation network. The emphasis areas include type of crashes, certain locations, and notable relationships between current efforts and crash history. The plan analyzes crash data on an aggregate basis as well as at specific locations to identify high-crash locations and high-risk locations, as well as city-wide trends and patterns. The analysis of crash history throughout the City's transportation network allows for opportunities to:

1. Identify factors in the transportation network that inhibit safety for all roadway users.
2. Improve safety at specific high-crash locations, and reduce serious injury and fatal collisions.
3. Develop safety measures using the four E's of safety: Engineering, Enforcement, Education, and Emergency Response to encourage safer driver behavior and lower severity outcomes.

With this plan, the City continues its safety efforts by identifying areas of emphasis and systemic recommendations to enhance safety.

The City's vision is to enhance the transportation network and reduce traffic fatalities and serious injury-related crashes. The City's vision includes the following goals:

- Providing a safe and efficient street system that links all parts of the area for the movement of people and goods
- Providing Rialto's residents with a choice of travel modes
- Providing a street system that contributes to residents' quality of life and minimizes impacts on the environment
- These goals will be furthered by this plan through the following target objectives

Objective #1: Identify areas with a high risk for crashes.

Objective #2: Illustrate the value of a comprehensive safety program and the systemic process.

Objective #3: Plan future safety improvements for near-, mid-, and long-term.

Objective #4: Define safety projects for HSIP and other program funding considerations.

The plan analyzes the most recent range of crash data (January 1, 2018 through December 31, 2023) and roadway characteristics to access historic trends, patterns, and areas of increasing concern. While the COVID-19 pandemic altered traffic conditions and collision patterns from 2020 to 2022, these years were ultimately included to understand recent trends.

Further, the collision history was analyzed to identify locations with elevated risk of collisions either through collision histories or similarities to other locations with more active collision patterns. Using a network screening process, locations were identified within the city that will most likely benefit from safety enhancements. Additionally, collision risk factors for the entire network were derived. The outcomes informed the identification and prioritization of engineering and non-infrastructure safety measures to address certain roadway characteristics and related behaviors that contribute to motor vehicle collisions with active transportation users.

Emphasis areas were developed revisiting the visions and goals developed at the onset of the planning process and comparing them with the trends and patterns identified in the crash analysis.

Emphasis Area 1: Aggressive Driving

Emphasis Area 2: Impaired Driving

Emphasis Area 3: Bicyclist and Pedestrian Safety

Emphasis Area 4: Intersections

The following eleven (11) project locations were selected as priority projects based on an evaluation of crash data, stakeholder input, public input, and equity considerations that were chosen to be representative of the corridor and intersection configurations throughout the city:

1. **Intersection:** Cedar Avenue and Merrill Avenue
2. **Intersection:** Riverside Avenue and W Foothill Avenue
3. **Intersection:** Linden Avenue and Merrill Avenue
4. **Segment:** Riverside Avenue from San Bernardino Avenue to Valley Boulevard
5. **Intersection:** Sycamore Avenue and Baseline Road
6. **Intersection:** North Alder Avenue and Riverside Avenue
7. **Intersection:** Acacia Avenue and Rialto Avenue
8. **Segment:** Riverside Ave. from Agua Mansa Road and Miguel Bustamante Parkway
9. **Intersection:** Sycamore avenue and San Bernardino Ave.
10. **Segment:** Riverside Avenue from Industrial Drive to Jurupa Avenue
11. **Segment:** Merrill Avenue from Linden Avenue to Cedar Street

These locations were identified through the analysis process based on their crash histories, public engagement and input, the observed crash patterns, and their different characteristics to provide the most insight into potential systemic safety countermeasures that the city can employ to achieve the most cost-effective safety benefits. Countermeasures are subjected to a benefit-cost assessment and scored according to their potential return on investment. The potential benefit of these countermeasures at locations with similar design characteristics can then be extrapolated regardless of crash history, allowing for proactive safety enhancements that prevent further safety challenges from developing. Additionally, this information can be used to help the city apply for grants and other funding opportunities to implement these safety improvements. These grants and funding opportunities include highway Safety Improvement Program (HSIP), administered by Caltrans; the Safe Streets for All (SS4A) program, administered by the federal government; the Active Transportation Program (ATP) funds, administered by the federal government; and the Active Transportation Program (ATP) funds, administered by the State of California. There are also regional funding sources, administrated by the San Bernardino County Transportation Authority (SBCTA). The completion of a safety action plan is required for some of these programs and will allow the City of Rialto to be eligible for these funds.

Near-term action items were identified to accelerate the City's achievement of the goals and vision of a Safety Action Plan (SAP). The City can:

- Actively seek other funding opportunities to improve safety for all modal users.
- Establish a goal of zero traffic fatalities by the year 2050 consistent with the statewide goals set by Caltrans.
- Collaborate with established safety partners & neighboring municipalities as improvements are made to create a cohesive transportation network.
- Iteratively evaluate existing and proposed transportation safety programs and capital improvements to design a safer transportation network in Rialto.

These recommendations provide Rialto with a look-ahead for safety improvements that can be applied systemically. Additionally, this information can be used to help the City apply for grants and other funding opportunities to implement these safety improvements.

An evaluation and implementation plan were created that identifies actionable items that will help the City achieve the goals and vision set out in this report. This section will lay out next steps for the City to continue to capitalize on the analysis and information provided in this report. It is recommended that the City Council formally adopt this plan.

1. INTRODUCTION

Rialto's Safety Action Plan (SAP) identifies emphasis areas to inform and guide further safety evaluation of the City's transportation network. The emphasis areas include the type of crash, focused locations, and notable relationships between current efforts and crash history. The SAP analyzes crash data on an aggregate basis as well as at specific locations to identify high-crash locations, high-risk locations, and city-wide trends and patterns. The analysis of crash history throughout the City's transportation network allows for the following opportunities:

- Identify factors in the transportation network that inhibit safety for all roadway users, improve safety at specific high-crash locations, and
- Develop safety measures using the four E's of safety (Engineering, Enforcement, Education, and Emergency Response) to encourage safer driver behavior and better severity outcomes.

The City of Rialto has taken steps to enhance all modal safety throughout the City and, with this SAP, Rialto is continuing to prioritize safety in its planning process. The California Office of Traffic Safety most recently ranked Rialto 16th of 60 peer cities for total fatal and injured crashes after normalizing for population and Vehicle Miles Travelled (VMT) in 2021. With an OTS ranking of one considered the highest, or "worst," this indicates that Rialto performs worse than most of its peer cities in the state for limiting injuries on City roadways.

Based on the University of California Berkeley's Transportation Injury Mapping System (TIMS) and the California Department of Transportation (Caltrans) Vehicles Operation Cost Parameters, Rialto's economic losses due to traffic injuries amounted to approximately $260.2 million from 2018 through 2023. This report identifies factors associated with the most vehicle crashes particular to the City and proposes matching countermeasures to reduce or eliminate those crashes

The intent of the Safety Action Plan:

Create a greater awareness of road safety and risk

Reduce the number of fatal and severe injury crashes

Develop lasting Partnerships

Support for grant/funding applications

Prioritize investments in safety throughout the City

2. LEADERSHIP COMMITMENT AND GOAL SETTING

The Rialto Safety Action Plan evaluates the transportation network as well as non-infrastructure programs and policies within the city. Mitigation measures are evaluated using criteria to analyze the safety of road users (drivers, bicyclists, and pedestrians), the interaction of modes, the influences on the roadway network from adjacent municipalities, and the potential benefits of safety countermeasures. Through analysis of historical data and trends, community outreach and input, and proactive identification, safety opportunities can be identified and implemented without relying solely on a reaction and response to crashes as they occur.

Cities across the county have implemented SAPs and systemically addressed the conditions leading to serious injuries and fatal crashes. SAPs provide a locally developed and customized approach to directly address the most significant safety risks in the given jurisdiction. This plan's vision, goals, and objective have been established to reflect discussions with Rialto's staff, various stakeholders identified by City staff, input from community members, and a review of existing plans/policies in the area. This plan also supports the goal of zero fatalities from traffic collisions by 2050, which is consistent with Caltrans and the Southern California Association of Governments' (SCAG)'s Vision Zero goals.

Goal #1: Identify areas with a high risk for crashes

Objectives:

- Evaluate the City's roadway network for crash activity
- Identify intersections and segments in need of mitigation
- Identify areas of interest with respects to safety concerns for pedestrians and bicycles

Goal #2: Illustrate the value of a safety action plan and the systemic process

Objectives:

- Demonstrate the systemic process' ability to identify locations with higher risk for crashes based on present characteristics closely associated with severe crashes
- Demonstrate, through the systemic process, the gap and data collection activities that can be improved upon
- Demonstrate a safety toolbox and strategies to better align with current best practices, and where there are opportunities for new initiatives that would likely support safer roads and better driving behaviors
- Identify safety countermeasures for specific locations (selected project locations)
- Identify safety countermeasures that can be applied city-wide

Goal #3: Define safety improvements for the near-, mid- and long-term, including projects for HSIP, SS4A and other program funding consideration

Objectives:

- Create the outline for a prioritization process that can be used in this and forth-coming cycles
- Use the systemic process to create Project Case Study sheets
- Use Project Case Study sheets to apply for upcoming HSIP funding consideration
- Demonstrate the correlation between the proposed safety countermeasures with the Vision Zero Initiative and the California State Highway Safety Plan

Goal #4: Identify emphasis areas to prioritize countermeasure application

Objectives:

- Use systemic crash analysis to identify emphasis areas
- Prioritize emphasis areas for countermeasure development
- Align emphasis areas with City goals & objectives
- Align emphasis areas with current City areas of concern

Goal #5: Proposed List of Targeted Safety Investigation for Implementation of Countermeasures

Objectives:

- Identify targeted safety investigation for implementation
- Identify systemic issues where countermeasures can be implemented
- Prioritize these countermeasures for implementation based on cost, effort, and timeline

3. PLANNING STRUCTURE

Stakeholder and Public Workshops

Through the development and implementation of this Safety Action Plan, the City will continue its collaboration with safety partners to identify and discuss safety issues within the community. Key stakeholder briefings held as part of the SAP provided insight on lessons learned from implementation, and indicated a desire to coordinate improvements with neighboring cities.

Guidance on the Safety Action Plan process is provided at both the national (FHWA) and state (Caltrans) level, and both agencies have developed a general framework of data and recommendations for a Safety Plan.

FHWA encourages the following:

- The establishment of a working group (stakeholders/public) to participate in developing a Safety Action Plan
- A review of crash, traffic, and roadway data to identify areas of concerns
- The identification of goals, priorities, and countermeasures to recommend improvements at spot locations, systemically and comprehensively

Caltrans guidance follows a similar outline with the following steps:

- Establish leadership
- Analyze the safety data
- Determine emphasis areas
- Identify strategies
- Prioritize and incorporate strategies
- Evaluate and update the Safety Plan

The City has tasked a team comprised of members from the Public Works Department Staff, the City Engineer, and Planning Commission to develop, implement, and monitor the progress of the Safety Action Plan. The team will work with council to keep moving the Safety Action Plan items forward.

The implemention of the Safety Action Plan is discussed further in Section 12.2 Implementation Plan, Section 12.2.1 Monitoring, and Section 12.3 Implementation Strategies.

3.1 GUIDING MANUALS

This section describes the analysis process undertaken to evaluate safety within Rialto at a systemic level. This report identifies specific locations within the City that will benefit from safety enhancements and services crash risk factors based on historic crash data using a network screening process. The outcome will inform the identification and prioritization of engineering and non-infrastructure safety measures by addressing certain roadway characteristics and related driving behaviors contributing to crashes. This process uses the latest national and state best practices for statistical roadway analysis described.

3.1.1 Local Roadway Safety Manual

The Local Roadway Safety Manual: A Manual for California's Local Road Owners (Version 1.6, April 2022) encourages local agencies to pursue a proactive approach when identifying and analyzing safety issues and preparing to compete for project funding opportunities. A proactive approach is the analyzation of safety in an entire roadway network through either a one-time network wide analysis or a routine analysis of the roadway network.

According to the Local Roadway Safety Manual (LRSM), "the California Department of Transportation (Caltrans) – Division of Local Assistance is responsible for administering California's federal safety funding intended for local safety improvements."

To provide the most beneficial and competitive funding approach, the analysis leading to countermeasure selection should focus on both intersections and roadway segments and maintain consideration of roadway characteristics and traffic volumes. The result should reflect a list of locations that are most likely to benefit from cost-effective countermeasures, preferably prioritized by benefit/cost ratio. The manual suggests using a mixture of quantitative and qualitative measures to identify and rank locations using both crash frequency and crash rates. These findings should then be screened for crash type and severity patterns to determine the cause of crashes and the potential effective countermeasures. Qualitative analysis should include field visits and a review of existing roadway characteristics and devices. The specific roadway context can then be used to assess conditions that may decrease safety at the site and at systematic levels.

Countermeasure selection should be supported using Crash Reductions Factors (CRFs). These factors are a peer reviewed product of research quantifying the expected rate of crash reduction expected from a given countermeasure. If more than one countermeasure is under consideration, the LRSM provides guidance on appropriate application of CMFs.

3.1.2 Safe System Approach

The SS4A grant is guided by the Safe System Approach, which involves another perspective on infrastructure, human behavior, responsible oversight of the vehicle and transportation industry, and emergency response shifting from a conventional safety approach to focus on both human mistakes and human vulnerability. A Safe System Approach incorporates the following principles:

- Death and Serious Injuries are Unacceptable
- Humans Make Mistakes
- Humans are Vulnerable
- Responsibility is Shared
- Safety is Proactive
- Redundancy is Crucial

3.1.3 Highway Safety Manual

The American Association of State Highway and Transportation Officials (AASHTO) Highway Safety Manual (HSM) presents a variety of methods for quantitatively estimating crash frequency or severity at a variety of locations. 2 This four-part manual is divided into the following parts: A) Introduction, Human Factors, and Fundamentals, B) Roadway Safety Management Process, C) Predictive Method, D) Crash Modification Factors.

In Chapter 4 of Part B in the HSM, the "Network Screening Process" is a tool for an agency to analyze the entire network and identify/rank locations that are most likely or least likely to realize a reduction in the frequency of crashes.

The HSM identifies five steps in this process:

1. **Establish Focus:** Identify the purpose or intended outcome of the network screening analysis. This decision will influence data needs, the selection of performance measures and the screening method that can be applied.
2. **Identify Network and Establish Reference Populations:** Specify the types of sites or facilities being screened (i.e., segments, intersections, geometrics) and identify groupings of similar sites or facilities.
3. **Select Performance Measures:** There are a variety of performance measures available to evaluate the potential to reduce crash frequency at a site. In this step, the performance measure is selected as a function of the screening focus and the data and analytical tools available.
4. **Select Screening Method:** There are three principal screening methods described in this chapter (i.e., ranking, sliding window, peak searching). Each method has advantages and disadvantages; the most appropriate method for a given situation should be selected.
5. **Screen and Evaluate Results:** The final step in the process is to conduct the screening and analysis and evaluate the results.

The HSM provides several statistical methods for screening roadway networks and identifying high risk locations based on overall crash histories.

3.2 ANALYSIS TECHNIQUES

3.2.1 Crash and Network Screening Analysis

Intersections and roadways were analyzed using four collision metrics:

- Number of Collisions
- Critical Crash Rate (HSM Ch. 4)
- Probability of Specific Crash Types Exceeding Threshold Proportion (HSM Ch. 4)
- Equivalent Property Damage Only (HSM Ch. 4)

The initial steps of the crash analysis established sub-populations of roadway segments and intersections that have similar characteristics. For this study, intersections were grouped by their control type (Signalized, or Unsignalized) and segments by their roadway category (Other Principal Arterial, Minor Arterial, Collector, or Local Streets). Individual crash rates were calculated for each sub-population. The population level crash rates were then used to assess whether a specific location has more or fewer crashes than expected.

These sub-populations were also used to determine typical crash patterns to help identify locations where unusual numbers of specific crash types are seen.

The network screening process ranks intersections and roadway segments by the number of crashes that occurred at each one over the analysis period, and then identifies areas that had more of a given type of crash than would be expected for that type of location. These crash type factors were 1) crash injury (fatal, severe injury, other visible injury, complaint of pain, property damage only), 2) crash type (broadside, rear-end, sideswipe, head-on, hit object, overturned, bicycle, pedestrian, other), 3) environmental factors (lighting, wet roads), 4) driver behavior (aggressive), and 5) driver impairment. With these additional factors, the locations were further analyzed and assigned a new rank.

From the results of the network screening analyses, a short-list of locations was chosen based on crash activity, crash severity, crash patterns, location type, and area of the City of Rialto to provide the greatest variety of locations covering the widest range of safety opportunities for safety toolbox development. The intent is to populate the safety toolbox with mitigation measures that will be applicable to most of the crash activity in the city. As a result, seven locations have been selected for mitigation analysis.

3.2.2 Statistical Performance Measures

Critical Crash Rate (CCR)

Analyzing the number of collisions at a location is a method used to understand the cost to society incurred at the local level; however, it does not give a complete indication of the level of risk for those who use that intersection or roadway segment daily. The HSM describes the Critical Crash Rate method, which provides a statistical review of locations to determine where risk is higher than that experienced by other similar locations. It is also the first step in analyzing patterns that may suggest systemic issues that can be addressed at that location, and proactively at others to prevent new safety challenges from emerging.

The CCR compares the observed crash rate to the expected crash rate at a location based on facility type and volume using a locally calculated average crash rate for the specific type of intersection or roadway segment being analyzed. Based on traffic volumes and a weighted citywide crash rate for each facility type, a critical crash rate threshold is established at the 95% confidence level to determine locations with higher crash rates that are unlikely to be random. The threshold is calculated for each location individually based on traffic volume and the crash profile of similar facilities.

Figure 1: Critical Crash Rate Formula

$$R_{c,i} = R_a + \left[P \times \sqrt{\frac{R_a}{MEV_i}} \right] + \left[\frac{1}{(2 \times (MEV_i))} \right]$$

Where,

$R_{c,i}$ = Critical crash rate for intersection i

R_a = Weighted average crash rate for reference population

P = P-value for corresponding confidence level

MEV_i = Million entering vehicles for intersection i

Source: Highway Safety Manual

Data Needs

CCR can be calculated using:

- Daily entering volume for intersections or ADT for roadway segments
- Intersection control types to separate them into like populations
- Roadway functional classification to separate them into like populations
- Collision records in Geographic Information System (GIS) or tabular form including coordinates or linear measures

Strengths

- Reduces low volume exaggeration
- Considers variance
- Establishes comparison threshold

CCR Methodology

The process of analyzing the CCR and comparing locations (separately by intersections and segments) is a multi-step process. The following is a high-level description of the process undertaken to develop the initial analysis.

The first step in the process was to establish a city-wide crash rate for each facility population. These populations are broken into two categories with sub-categories:

Intersection:

- Signalized
- Non-signalized

Roadway Classification:

- Other Principal Arterial
- Minor Arterial
- Collector
- Local

The individual crash rate for each location was then calculated based on the associated traffic volume. This volume was either collected through data count resources or calculated based on the roadway classification. The next step was to establish a Significance Threshold. This Threshold was used to determine what level of exceedance (how much the crash rate exceeded the critical crash rate) a location must have based on traffic volume to provide a high level of confidence that the collision occurring at the location is not random. For this study, a confidence level of 95% was used. The local crash rates were then compared to the Significance Threshold to see if each location exceeded the expected CCR and if so, by how much. After this analysis was completed, the locations were analyzed by their categories according to that level of exceedance.

Equivalent Property Damage Only (EPDO)

The equivalent property damage only (EPDO) method is described in the Highway Safety Manual. This method assigns weighting factors to crashes based on injury level (severe, injury, property damage only) to develop a property damage only score. In this analysis, the injury crash costs were calculated for each location (based on the latest Caltrans injury costs). This figure is then divided by the injury cost for a property damage only crash. The resulting number is the equivalent number of property damage only crashes at each site. This figure allows all locations to be compared based on injury crash costs. (Highway Safety Manual, Chapter 4).

Probability

The Highway Safety Manual describes the methodology for determining the probability that crash type is greater than an identified threshold proportion. This helps to identify locations where a crash type is more likely to occur.

Data Needs

The probability of a specific crash type can be determined using crashes records with location data, and classifications of the locations (intersections or segments) studied.

Strengths

- Can be used as a diagnostic tool.
- Considers variance in data.
- Not affected by selection bias.

The HSM methodology first determines the frequency of a specific crash type at an individual location, then determines the observed proportion of that crash type relative to all crash types at that location. A threshold proportion is then determined for the specific crash type; HSM suggests utilizing the proportion of the crash type observed in the entire reference population (e.g. throughout the entire City of Rialto).

These proportions are then utilized to determine the probability that the proportion of a specific crash type is greater than the long-term expected proportion of that crash type.

Figure 2: Probability of Specific Crash Types Exceeding Threshold Proportion

$$P\left(p_i > \overline{p^*_i} \,/\, N_{observed_j}, N_{observed_{i(TOTAL)}}\right) = 1 - betadist\left(\overline{p^*_i}, a + N_{observed_j}, \beta + N_{observed_{i(TOTAL)}} - N_{observed_j}\right)$$

Where:

$\overline{p^*_i}$ = Threshold proportion

p_i = Observed proportion

$N_{observed,i}$ = Observed target crashes for a site i

$N_{observed,i(TOTAL)}$ = Total number of crashes for a site i

Source: Highway Safety Manual

4. SAFETY ANALYSIS

4.1 ROADWAY NETWORK

The City's roadway database was used to build the base roadway network used for this analysis, and functional classifications were taken from the City's General Plan. Traffic volumes and signal locations were collected from Replica and were included in the analysis network. Intersections and roadway segments were divided into control and classification categories so that each set could have its own crash rates and be evaluated against similar facilities. **Figure 3** illustrates Rialto's roadway network and intersections as classified for this study.

4.2 INTERSECTIONS

The crash analysis requires each intersection be classified by type: Signalized or Unsignalized. The safety analysis compares intersection safety performance to locations with similar control types. This information is also displayed in **Figure 3**.

4.3 COUNT DATA

Vehicular count data is used as part of the analysis process to evaluate the impact of traffic and understand the natural hierarchy of the roadway network. Count data utilized for this project was pulled from Replica, reflecting average weekday volumes for the fall of 2023. For locations without volume or count data, reasonable assumptions were made based on classification types. The traffic volume information allowed the team to assess locations for risk to a given roadway user as well as reviewing locations with the highest number of crashes.

4.4 CRASH DATA

Crash data was collected from Crossroads Software for the period from January 1, 2018, through December 31, 2023, six years of data are utilized instead of the standard three years to provide more history to evaluate trends or patterns. Analysis of the raw crash data is the first step in understanding the specific and systemic challenges faced throughout the City. Analyzing the five years of data provided insight on the following crash trends and patterns. All crashes analyzed in the study period are shown in **Figure 4**. The locations of fatal and severe injury crashes are displayed in **Figure 5**.

Figure 3: Functional Classification and Signalized Intersections in Rialto

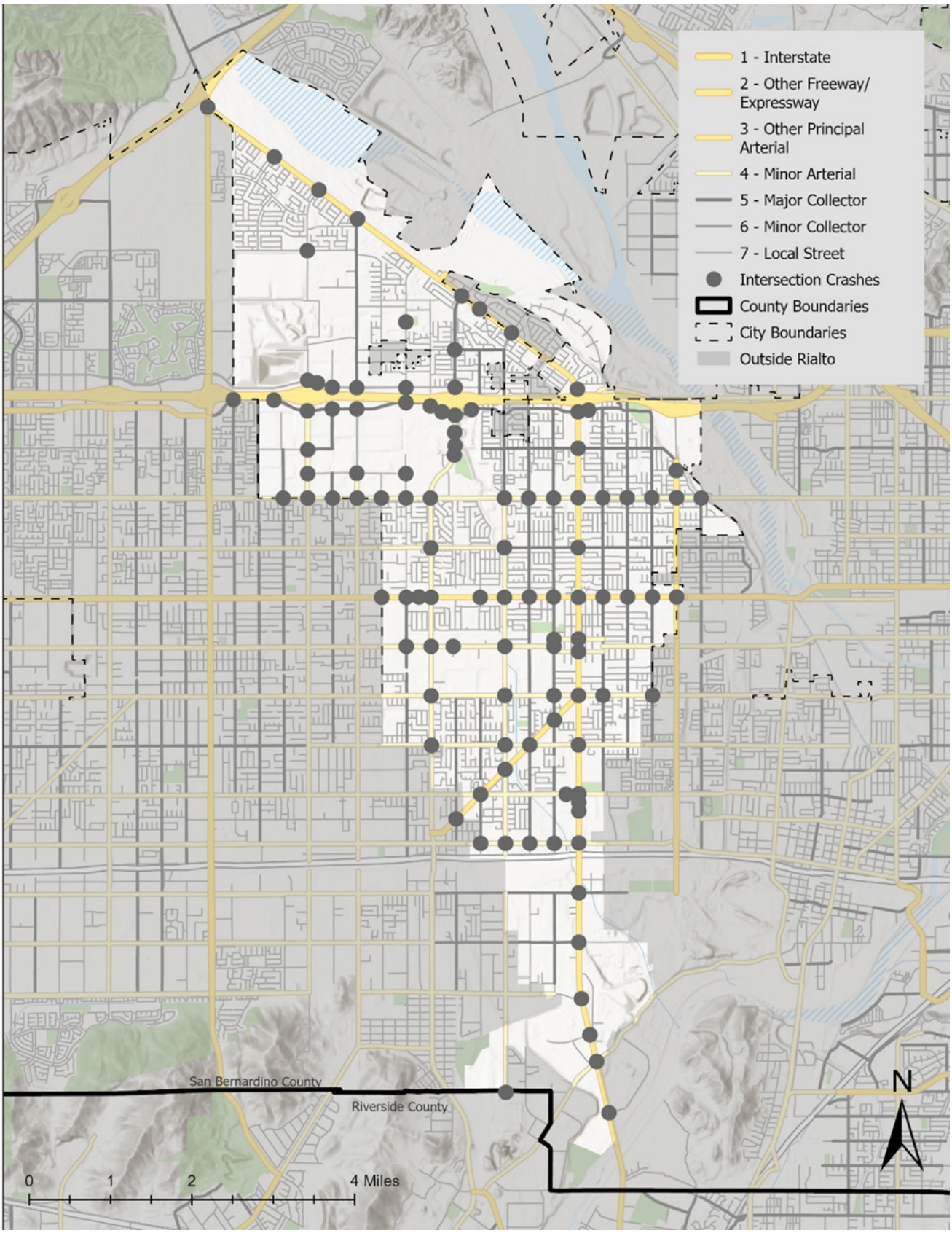


Figure 4: All Crashes in Rialto (2018–2023)

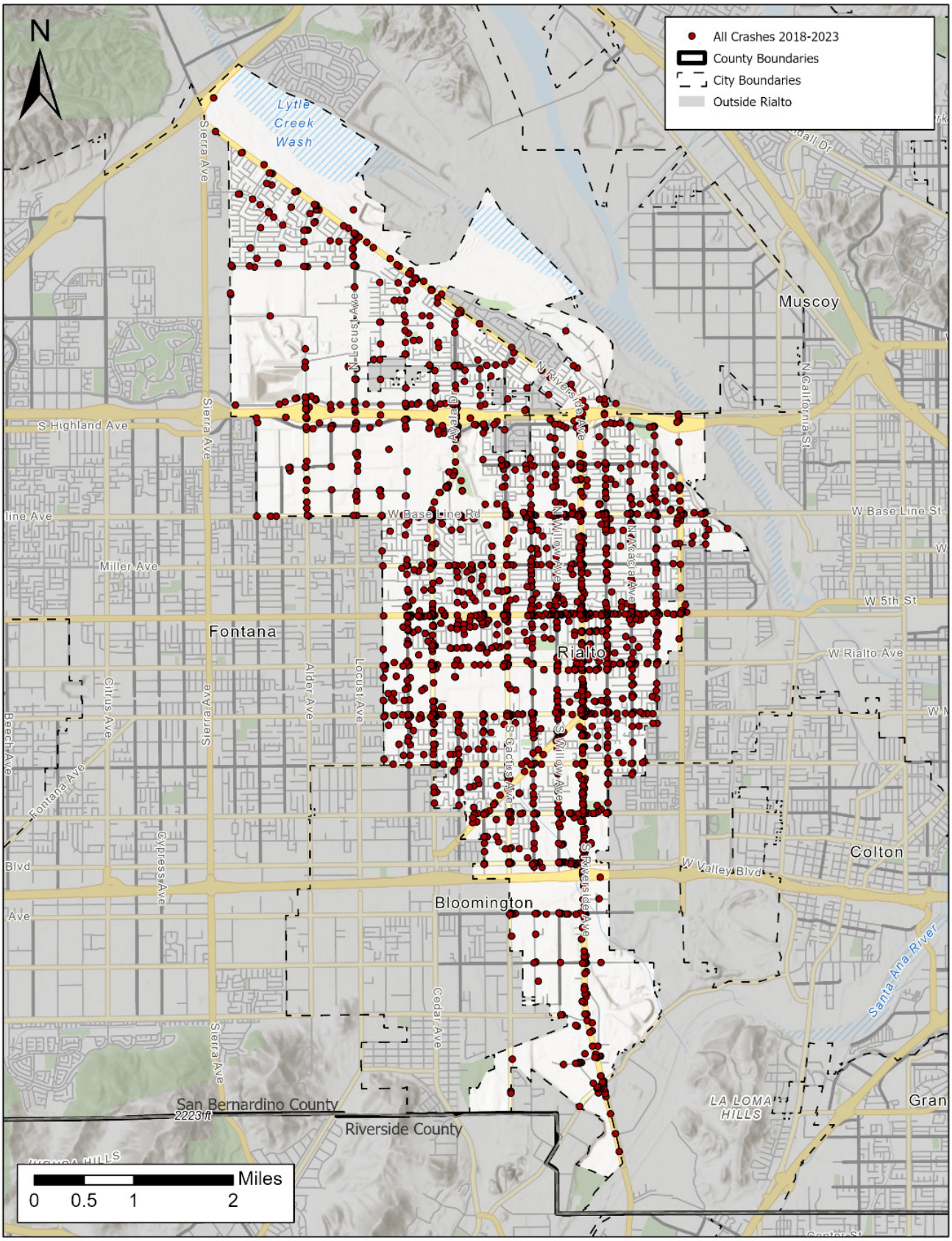
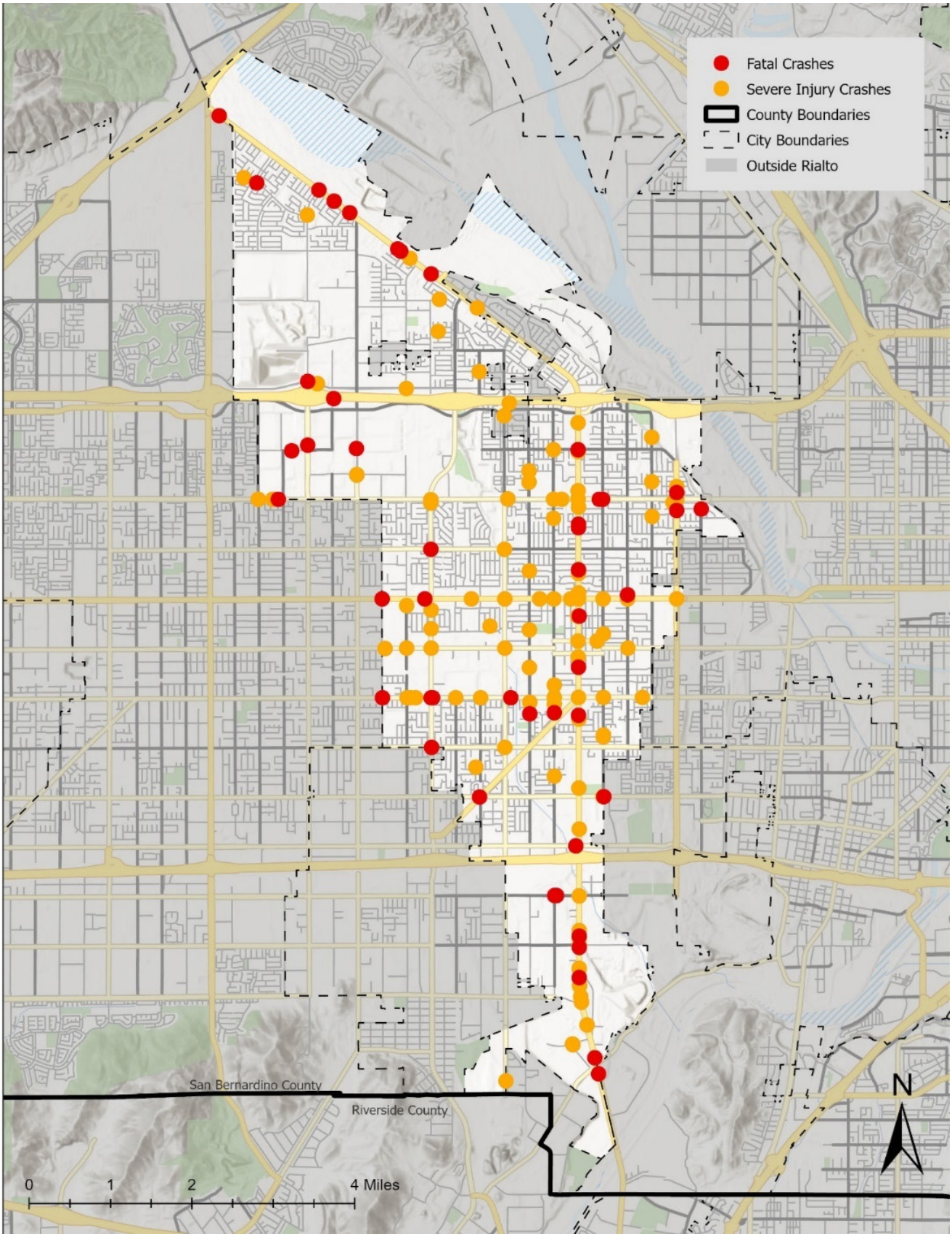


Figure 5: Fatal and Severe Injury Crashes



5. CRASH SAFETY TRENDS

The following section breaks down the crash data by a variety of input factors and road user types. This information is used to identify specific locations of concern for the city.

5.1 ALL CRASHES

According to the dataset acquired from TIMS between January 1, 2018, and December 31, 2023, there were **2125 crashes** recorded along the City's surface roadway network and at freeway ramps within the City (the analysis does not incorporate crashes occurring on mainline freeway segments).

During the study period, the most recorded crash types were broadside (46%) and rear rend (24%) crashes. **Figure 6** shows a breakdown of crash type for each year of the study period. **Figure 7** shows a breakdown of crash severity for each year of the study period. Both figures show that the number of crashes increased in 2021 and 2022, and then in 2023 returned to pre-2021 levels.

Figure 6: Crash Type by Year (2018–2023)

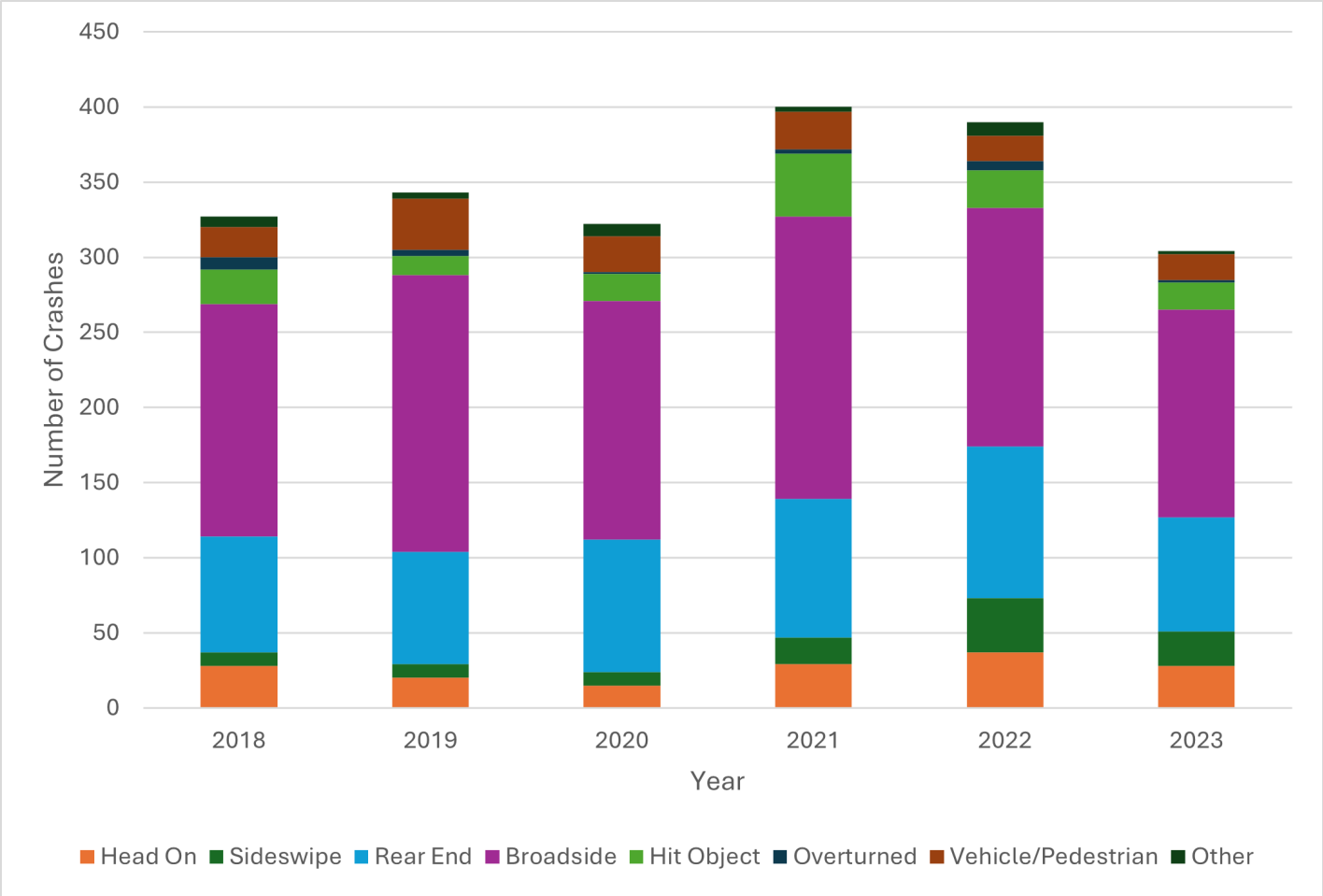
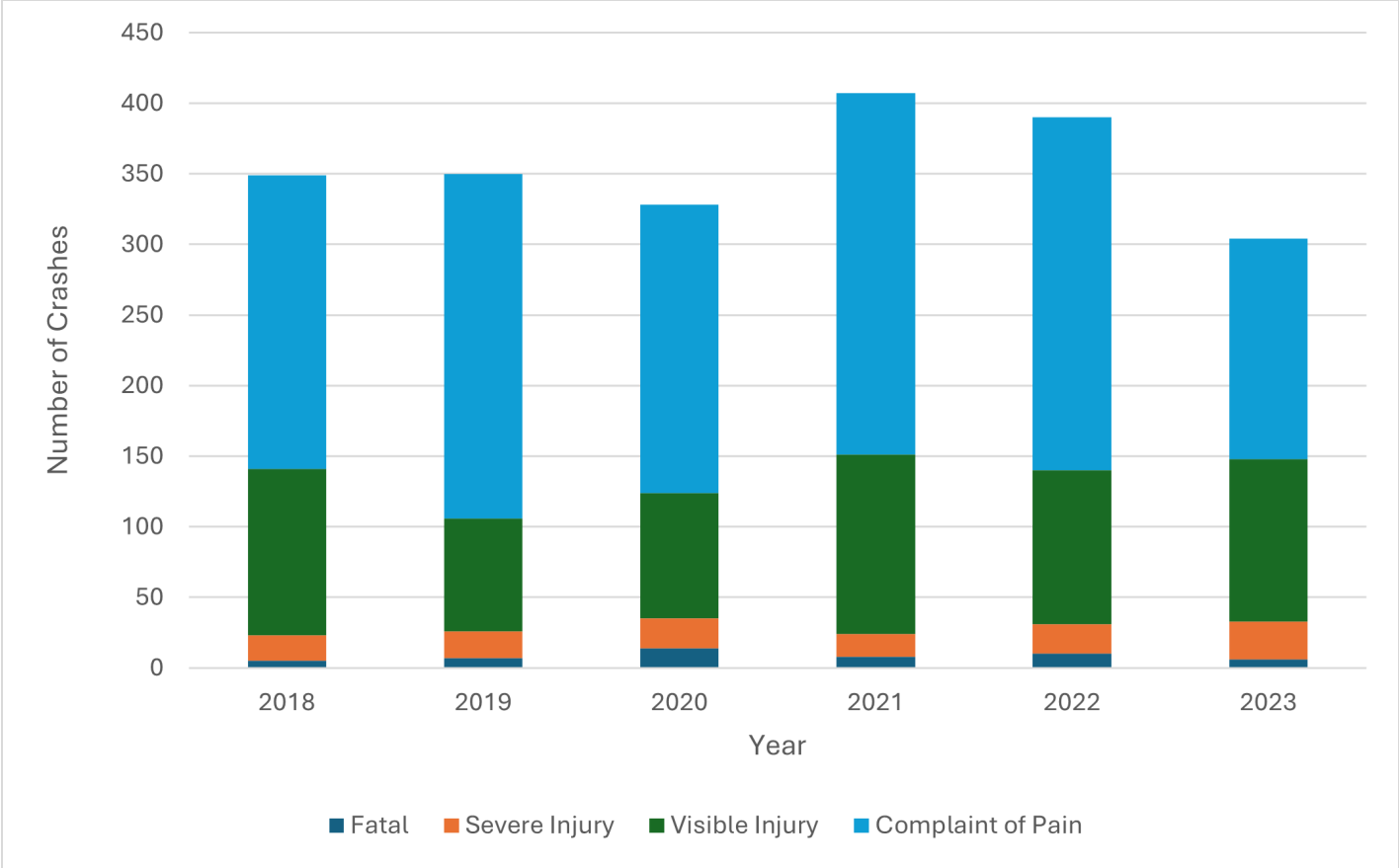


Figure 7: Crashes by Injury Level (2018–2023)



5.2 FATAL AND SUSPECTED SEVERE INJURY CRASHES

During the study period, a total of 50 fatal injury crashes and 122 suspected severe injury crashes occurred on the City's roadways. **Figure 8** shows a breakdown of fatal injury and suspected severe injury crashes for each year in the study period. As can be seen, the number of these crashes increased in 2020, mirroring nationwide trends. These crashes decreased in 2021 but increased significantly in 2022 and 2023. **Table 1** breaks down the number of fatal injury and suspected severe injury crashes that occurred during the study period and categorizes them by the type of vehicle involved.

Figure 8: Fatal and Severe Injury Crashes (2018–2023)

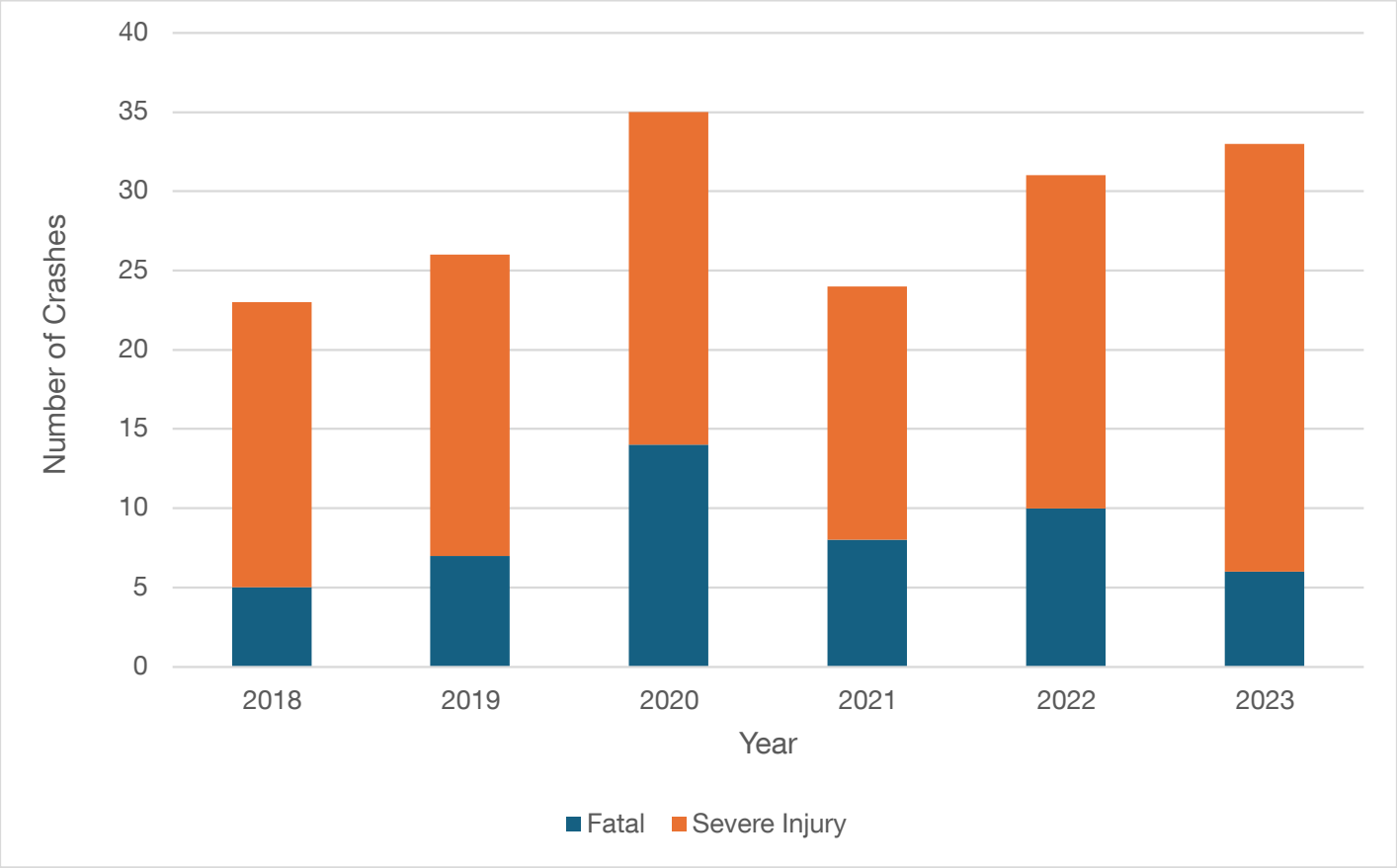


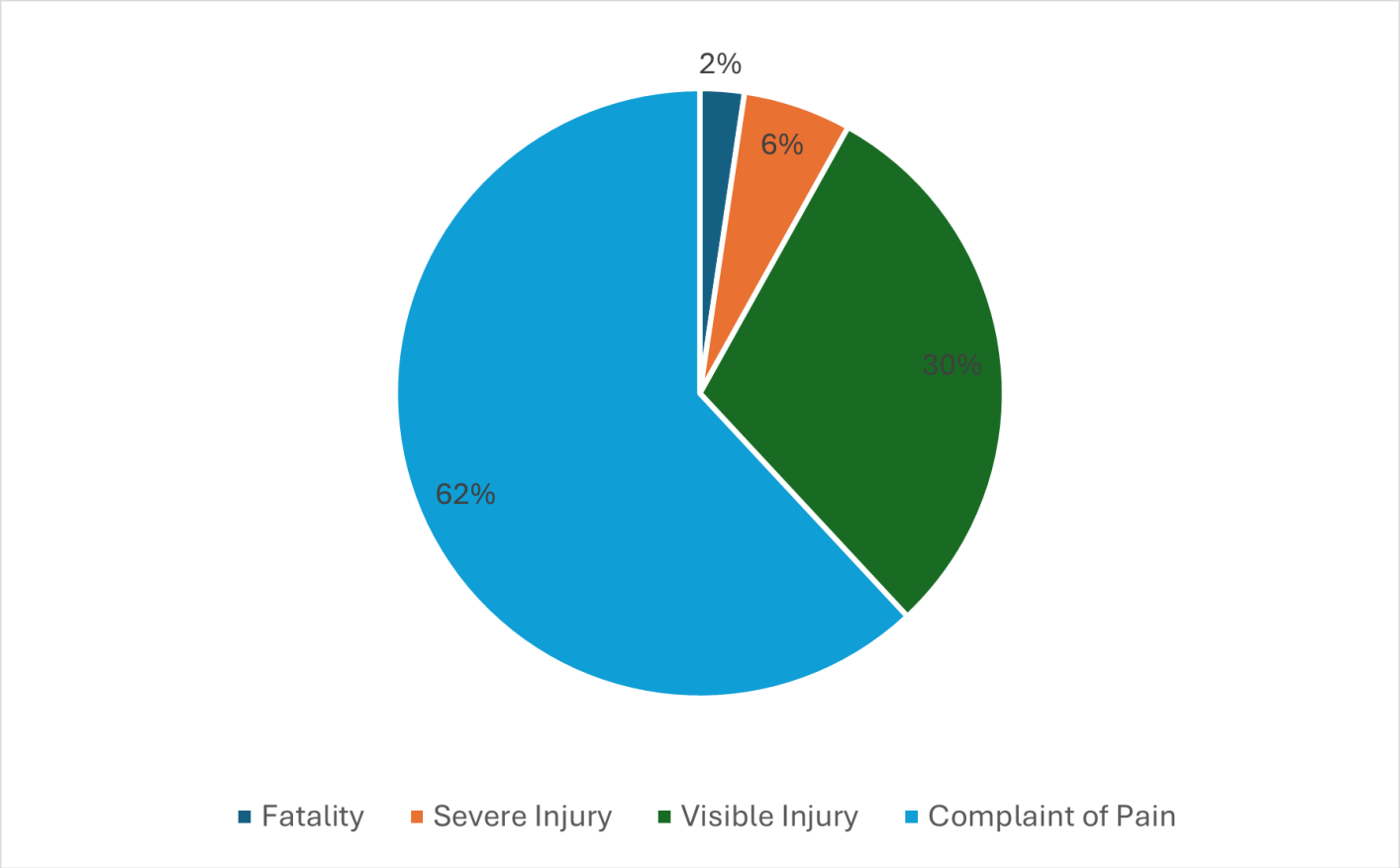
Table 1: Fatal Injury and Suspected Severe Injury Crashes Categorized by Involved Party (2018–2023)

Involved with	# of Severe Injury Crashes	# of Fatal Crashes
Non-Collision	3	0
Pedestrian	26	19
Other Motor Vehicle	65	18
Motor Vehicle on Other Roadway	1	0
Parked Motor Vehicle	5	0
Train	2	0
Bicycle	6	3
Fixed Object	12	9
Other Object	2	1
Total	**122**	**50**

5.3 CRASH SEVERITY

Figure 9 shows a breakdown of crash severity during the study period. Crashes resulting in fatal injury or suspected severe injury totaled 8.1% of all crashes.

Figure 9: Crash Severity (2018–2023)



5.4 PRIMARY COLLISION FACTOR

Table 2 shows a breakdown of crashes by primary crash factor, or in other words, their cause. The most cited cause of crashes in the City during the study period was unsafe speed, at 24.6%, followed by automobile right-of-way violations, at 23.5%, and traffic signals and signs, at 16.3% of all crashes.

Table 2: Primary Crash Factor (2018–2023)

Primary Crash Factor	No. of Crashes	% of Crashes
Unsafe Speed	522	24.56%
Automobile Right of Way	500	23.53%
Traffic Signals and Signs	346	16.28%
Driving or Bicycling Under the Influence of Alcohol or Drugs	240	11.29%
Improper Turning	215	10.12%
Pedestrian Violation	81	3.81%
Wrong Side of Road	40	1.88%
Unknown	39	1.84%
Pedestrian Right of Way	39	1.84%
Following Too Closely	23	1.08%
Improper Passing	17	0.80%
Unsafe Lane Change	17	0.80%
Other Than Driver (or Pedestrian)	16	0.75%
Unsafe Starting or Backing	15	0.71%
Other Improper Driving	6	0.28%
Other Hazardous Violation	5	0.24%
Impeding Traffic	2	0.09%
Hazardous Parking	1	0.05%
Other Equipment	1	0.05%
Grand Total	**2125**	**100.00%**

5.5 VULNERABLE ROAD USERS

5.5.1 Vehicle-Pedestrian Crashes

During the study period, 148 crashes were reported involving pedestrians, resulting in 19 fatal injuries, 26 suspected serious injuries, 47 suspected minor injuries, and 56 possible injury crashes. **Figure 10** shows the locations of vehicle-pedestrian crashes in the City during the study period.

5.5.2 Vehicle-Bicycle Crashes

During the study period, 59 crashes were reported involving bicycles, resulting in three (3) fatal injuries, 6 suspected serious injuries, 26 minor injuries, and 24 possible injury crashes. **Figure 10** shows the locations of vehicle-bicycle crashes in the City during the study period.

5.6 TIME OF DAY

During the study period, 60.4% of crashes occurred during daylight hours, while 36.4% occurred at night, with the remainder occurring near dawn or dusk. Most crashes during the night occurred along roadways or at intersections where there are existing streetlights. However, 1.9% of crashes occurred at night along roadways or at intersections where there were no streetlights.

5.7 TIME OF YEAR

Figure 11 shows a breakdown of the number of crashes by month of the year. The month with the highest number of crashes was October, with 246 crashes recorded during the study period. Crash activity spiked in October and November. The fewest number of crashes occurred in May, with 149 crashes recorded during the study period.

5.8 BEHAVIORAL DRIVING

Aggressive driving and impaired driving are two important behavioral factors that often significantly contribute to crash patterns.

Caltrans defines aggressive driving as behaviors that include speeding, tailgating, and running stop signs or red lights. These behaviors contributed to 41.9% of crashes recorded in the City during the study period.

Impaired driving is defined by Caltrans as any instance where a driver, pedestrian, bicyclist, or motorcyclist is under the influence of alcohol, illicit drugs, or prescribed or over-the-counter medication. During the study period, 11.3% of the crashes recorded within the City occurred as a result of driving or biking under the influence.

The California Office of Traffic Safety most recently ranked Rialto 9 of 60 peer cities for alcohol-involved crashes after normalizing for population for 2021 data yet ranks Rialto 54 of 60 peer cities for DUI arrests.

5.9 STATEWIDE COMPARISON

A comparison of select characteristics among fatal and suspected severe injury crashes between the City and the State of California was conducted for crashes occurring between 2016 and 2021 (the most recent statewide data available). The results of this statewide comparison are shown in **Table 3**.

Figure 10: Pedestrian and Bicycle Crashes (2018–2023)

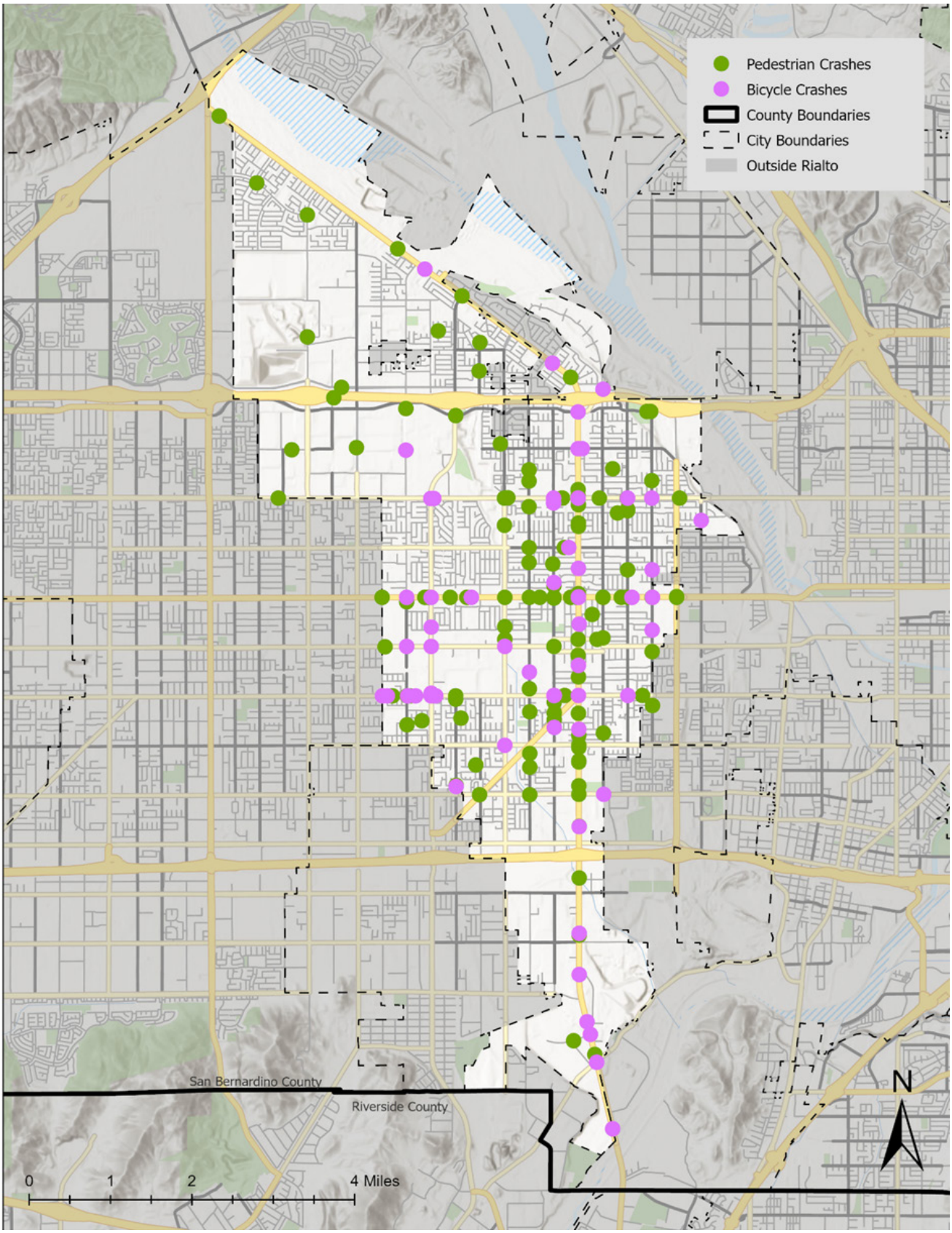


Figure 11: Number of Crashes by Month (2018–2023)

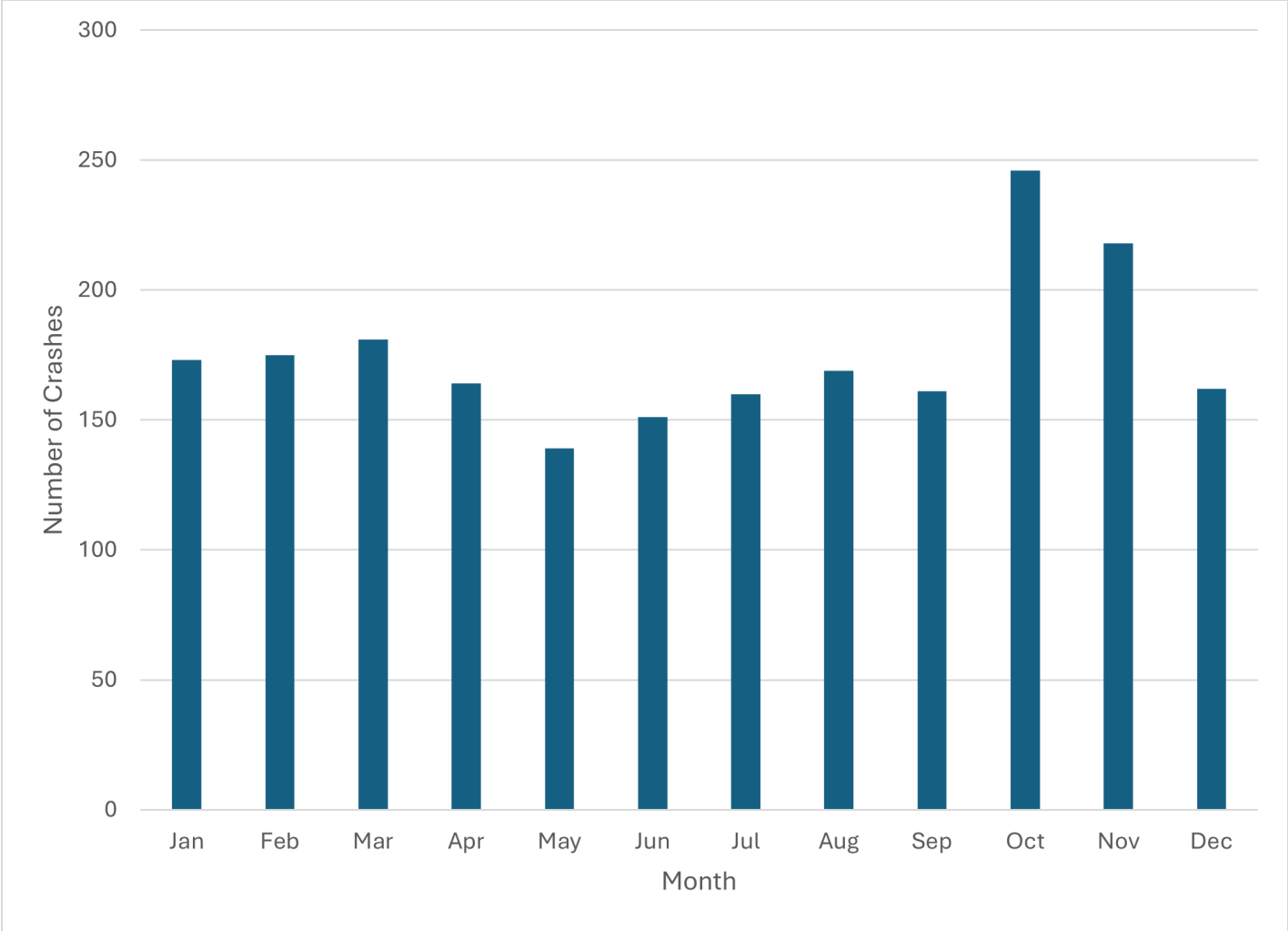


Table 3: Statewide Comparison of Fatal (F) and Suspected Serious Injury (SI) Crashes (2016–2021)

Challenge Areas	Statewide	Rialto	% Difference between Rialto and State
	% of F+SI Crashes (2016–2021)	% of F+SI Crashes (2016–2021)	
Pedestrians	19.2%	27.0%	7.7%
Impaired Driving	25.3%	31.3%	6.0%
Intersections	23.6%	28.6%	5.0%
Young Drivers	13.1%	16.8%	3.7%
Aggressive Driving	33.1%	36.5%	3.4%
Commercial Vehicles	6.4%	7.2%	0.9%
Work Zones	1.4%	1.3%	-0.1%
Distracted Driving	5.0%	4.6%	-0.4%
Occupant Protection	14.2%	12.5%	-1.7%
Aging Drivers	12.4%	9.9%	-2.5%
Bicyclists	8.3%	4.3%	-4.0%
Motorcyclists	21.0%	13.5%	-7.5%
Lane Departure	43.3%	31.9%	-11.3%

5.10 CRASH NETWORK SCREENING ANALYSIS RESULTS

Figure 12 below shows the results of the crash network screening analysis, depicting the number of crashes that occurred at intersections and at mid-block roadway segments across the City during the study period.

Figure 12: Crash Network Screening Analysis Results (2018–2023)

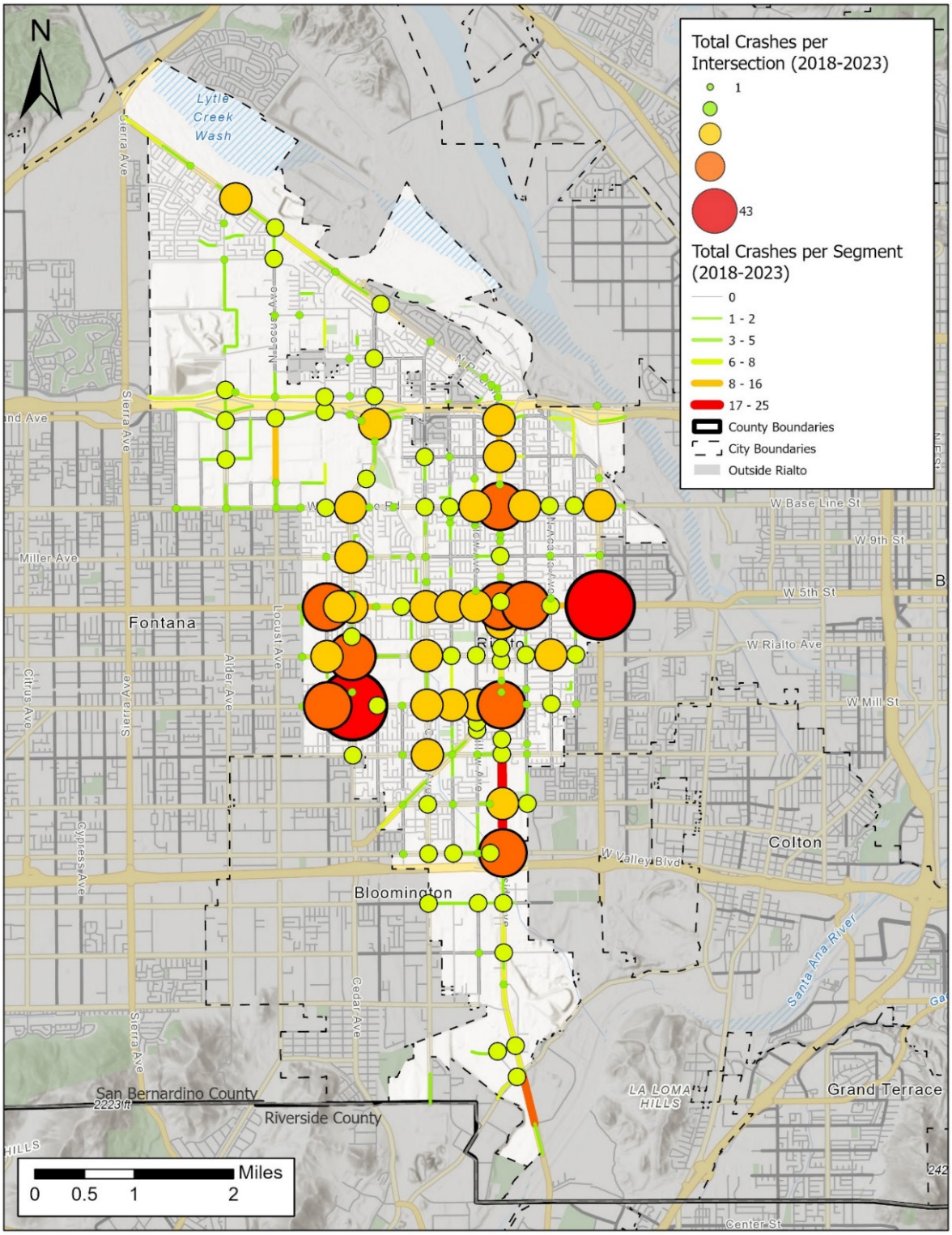


Table 4 and **Table 5** show the number of crashes occurring at intersections and along roadway segments within the City during the study period. These are organized by crash type for the locations that will be studied further in the report, and highlights locations in which the probability of those crash types exceeding the threshold proportion is greater than 33%.

The tables are ordered by the number of crashes that occurred at that segment or intersection. To be statistically significant, only locations where more than two crashes were recorded are included. At locations with one crash, random chance can account for crash history as much or more than specific roadway characteristics.

The tables are separated into sub-sections visible by the blue gradient. The first two columns, Crashes and CCR, represent the level of crash activity in absolute terms, and as relative to other similar locations, respectively.

Per guidance from the Local Roadway Safety Manual (LRSM) each sub-population of locations was ranked according to the number of crashes. The second column shows the CCR, which highlights whether or not the crash activity was higher or lower than the average for the sub-population based on the individual segment or intersection volume. This volume was either collected through data count resources or calculated based on the roadway classification. All averages used in the CCR calculation were established based on City of Rialto crash data to determine what locations might be best to prioritize at the local level. This process highlights locations of crashes that are unusual for the City to determine Rialto's challenge areas, and not problems faced by peer cities that do not apply in Rialto. The remaining columns total crashes by type, to evaluate each sub-population and understand what proportion of crashes in the City are of a particular type. The citywide proportion was compared with the local intersection or segment specific proportion to determine which locations have more of a given crash type than would be expected when considering the City average. A confidence level of 95% was used for the CCR Calculations. For this study, two categories of ranges were highlighted:

- **Light Gray:** >50% probability that this crash type is over-represented on this segment/intersection as compared to other characteristically similar locations within the City of Rialto. Although these locations have a slightly higher probability of this crash type than their counterparts, they are not necessarily highly significant.
- **Dark Gray:** >75% probability that this crash type is over-represented on this segment/intersection as compared to other characteristically similar locations within the City of Rialto. These locations are highly significant in regard to the number of crashes occurring here and should be further investigated.

After this analysis was completed, the locations were ranked against other similar locations within the City by their categories according to the expected proportion of that crash type within Rialto. Locations with higher-than-expected crashes of that type were identified by the probability that random chance would not account for exceedances.

Additionally, it should be noted that the columns for Crash Severity, Type, Involved With, and Behavior are additional characteristics of the crashes and should not be counted as a separate crash.

Table 4: Crash Analysis Results – Intersections

Intersection	Crashes	Local CCR Differential[1]	EPDO[2]	Fatal	Serious Injury	Other Visible Injury	Complaint of Pain	PDO	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
Signalized Intersections																						
Cedar Ave & W Merrill Ave	43	0.43	1096	3	2	9	29	0	20	1	10	5	0	1	1	4	3	13	0	4	0	1
N Pepper Ave & E Foothill Blvd P	35	1.02	418	0	1	10	24	0	22	3	6	1	1	1	0	1	0	10	1	2	0	3
N Riverside Ave & W Foothill Blvd	30	0.05	387	0	1	10	19	0	11	2	7	3	0	0	1	5	3	14	0	0	0	2
S Cedar Ave & W Rialto Ave	27	0.08	341	0	1	4	22	0	13	1	13	0	0	0	0	0	1	18	0	8	0	2
N Sycamore Ave & E Foothill Blvd	27	0.49	341	0	1	4	22	0	12	2	4	3	1	1	0	2	0	14	0	1	0	1
S Riverside Ave & W Valley Blvd	25	-0.13	334	1	0	5	19	0	11	2	7	3	1	0	1	0	0	17	0	3	0	1
N Linden Ave & W Foothill Blvd	24	0.54	183	0	0	8	16	0	16	0	4	2	0	0	0	2	1	17	0	2	0	0
Bloomington Ave & W Merrill Ave	23	0.20	485	0	2	6	15	0	6	2	9	0	2	0	1	2	2	10	0	2	0	1
N Riverside Ave & E Base Line Rd	21	-0.14	482	0	2	8	11	0	9	2	6	0	0	0	1	3	1	10	0	1	1	3
N Willow Ave & W Foothill Blvd	20	0.25	294	0	1	3	16	0	7	1	7	1	0	1	1	2	0	12	0	1	1	4
N Cedar Ave & W Foothill Blvd	19	-0.09	129	0	0	3	16	0	4	0	11	0	0	0	0	3	1	10	0	2	1	0
N Willow Ave & W Baseline Rd	19	-0.02	297	0	1	5	13	0	9	0	6	1	1	0	0	1	0	11	0	3	0	0
N Sycamore Ave & E Base Line Rd	18	0.08	772	2	2	6	8	0	12	1	3	2	0	0	0	1	0	8	0	1	0	3
N Alder Ave & N Riverside Ave	18	0.19	440	1	1	3	13	0	8	2	4	4	0	0	0	0	0	5	0	2	0	2
S Riverside Ave & W San Bernardino Ave	17	-0.20	145	0	0	9	8	0	4	0	7	1	2	0	0	2	0	9	0	4	0	1
S Linden Ave & W Rialto Ave	17	0.59	448	0	2	6	9	0	6	1	4	2	3	0	0	0	1	8	0	4	2	0
S Willow Ave & W Merrill Ave	16	0.13	601	0	3	6	7	0	10	0	3	1	0	0	1	1	2	7	0	1	0	0
S Cactus Ave & W Merrill Ave	16	-0.08	111	0	0	3	13	0	11	2	2	1	0	0	0	0	0	9	0	0	0	1
N Cactus Ave & W Foothill Blvd	16	-0.18	284	0	1	6	9	0	6	0	5	2	1	0	0	2	0	8	0	2	0	0
N Pepper Ave & E Margarita Rd	16	-0.12	442	0	2	6	8	0	9	0	4	2	0	0	0	1	0	7	0	4	0	0

Intersection	Crashes	Local CCR Differential[1]	EPDO[2]	Fatal	Serious Injury	Other Visible Injury	Complaint of Pain	PDO	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
N Ayala Dr & S Renaissance Pkwy	16	-0.10	125	0	0	6	10	0	4	3	6	1	1	0	0	1	0	9	0	2	0	2
S Cactus Ave & W Randall Ave	15	0.28	259	0	1	2	12	0	12	1	0	2	0	0	0	0	1	5	0	1	0	2
N Cedar Ave & W Etiwanda Ave	15	-0.12	254	1	0	1	13	0	10	0	1	2	1	0	0	0	0	5	0	0	0	0
N Riverside Ave & Easton St	15	-0.19	114	0	0	5	10	0	7	0	7	0	1	0	0	0	1	9	0	0	0	0
Shopping Center & Foothill Blvd	15	3956	124	0	0	7	8	0	13	0	1	1	0	0	0	0	0	5	0	0	0	0
S Cactus Ave & W Rialto Ave	14	-0.10	258	0	1	3	10	0	9	0	4	0	0	0	1	0	1	7	0	3	0	1
N Ayala Dr & W Baseline Rd	14	-0.20	425	0	2	5	7	0	8	1	2	0	1	0	0	2	2	8	0	2	0	2
N Riverside Ave & E Walnut Ave	14	-0.19	421	1	1	4	8	0	4	0	6	1	1	0	0	3	1	7	0	2	1	0
N Lilac Ave & W Foothill Blvd	13	-0.16	79	0	0	0	13	0	8	0	2	1	1	0	0	1	0	11	0	1	0	0
S Lilac Ave & W Valley Blvd	11	-0.06	76	0	0	2	9	0	6	1	2	2	0	0	0	0	0	7	0	1	0	0
S Cactus Ave & W Valley Blvd	11	-0.13	85	0	0	4	7	0	8	0	2	1	0	0	0	0	0	2	0	1	0	0
N Eucalyptus Ave & E Foothill Blvd	11	-0.15	76	0	0	2	9	0	4	0	3	1	0	0	0	2	1	5	0	2	0	0
N Acacia Ave & E Foothill Blvd	11	-0.22	235	0	1	2	8	0	8	1	1	0	0	0	0	1	0	8	0	0	0	2
N Acacia Ave & E Base Line Rd	11	-0.13	90	0	0	5	6	0	7	0	1	1	0	0	0	2	1	3	0	0	0	1
N Eucalyptus Ave & E Margarita Rd	11	-0.12	81	0	0	3	8	0	7	0	1	2	0	0	1	0	2	2	0	3	0	1
N Riverside Ave & W Etiwanda Ave	10	-0.21	70	0	0	2	8	0	4	0	3	2	0	0	0	0	0	4	0	1	0	1
N Cactus Ave & W Baseline Rd	10	-0.26	219	0	1	0	9	0	1	0	5	0	1	0	0	2	0	3	0	2	0	0
Alder Ave & Renaissance Pkwy	10	-0.29	75	0	0	3	7	0	4	0	5	0	1	0	0	0	0	7	0	2	0	3
Industrial Dr S & Resource Dr	9	-0.11	64	0	0	2	7	0	0	0	8	0	0	0	0	0	1	5	0	2	0	1
S Riverside Ave & E Slover Ave	9	-0.32	386	0	2	3	4	0	5	0	2	0	1	0	0	0	0	1	0	2	0	1
S Riverside Ave & W Rialto Ave	9	-0.19	218	0	1	1	7	0	5	0	3	0	0	0	0	1	0	8	0	0	0	1

Intersection	Crashes	Local CCR Differential[1]	EPDO[2]	Fatal	Serious Injury	Other Visible Injury	Complaint of Pain	PDO	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
N Locust Ave & Renaissance Pkwy	9	-0.23	64	0	0	2	7	0	8	0	1	0	0	0	0	0	0	7	0	1	0	0
S Riverside Ave & W Santa Ana Ave	8	-0.29	375	1	1	2	4	0	2	0	4	1	0	0	1	0	0	5	1	1	0	0
S Willow Ave & W Rialto Ave	8	0.03	58	0	0	2	6	0	1	0	3	2	1	0	0	1	0	3	0	3	0	0
S Riverside Ave & E Randall Ave	8	-0.30	72	0	0	5	3	0	1	0	2	1	1	1	1	2	0	6	0	0	0	0
N Lilac Ave & W Baseline Rd	8	-0.21	63	0	0	3	5	0	5	0	2	1	0	0	0	0	0	6	0	1	0	0
N Linden Ave & W Baseline Rd	8	-0.23	58	0	0	2	6	0	4	0	3	0	0	0	0	0	0	6	0	2	0	0
Alder Ave & W Casmalia St	8	-0.21	207	1	0	0	7	0	3	0	3	0	0	1	0	0	0	7	0	0	0	1
N Ayala Dr & N Riverside Oh E	8	0.24	58	0	0	2	6	0	1	0	3	0	2	0	1	1	0	6	0	0	0	1
S Riverside Ave & E 1st St	7	-0.10	210	0	1	2	4	0	1	0	3	0	1	0	1	1	0	5	0	0	0	0
N Spruce Ave & W Foothill Blvd	7	-0.30	47	0	0	1	6	0	1	0	4	2	0	0	0	0	0	5	0	1	0	0
N Linden Ave & Renaissance Pkwy	7	-0.18	61	0	0	4	3	0	6	0	0	0	1	0	0	0	0	7	0	0	0	0
N Ayala Dr & W Galway St	7	-0.21	52	0	0	2	5	0	4	0	2	1	0	0	0	0	0	6	0	0	0	1
N Glenwood Ave & W Bohnert Ave	7	-0.04	56	0	0	3	4	0	6	1	0	0	0	0	0	0	0	4	0	0	0	0
S Cedar Ave & W Randall Ave	6	-0.32	204	1	0	2	3	0	4	0	1	0	1	0	0	0	0	5	0	1	0	1
S Willow Ave & Bloomington Ave	6	-0.14	50	0	0	3	3	0	3	0	0	0	0	0	0	1	0	3	0	1	0	0
Alder Ave & W Walnut Ave	6	30.86	46	0	0	2	4	0	2	1	2	1	0	0	0	0	0	4	0	1	0	1
N Linden Ave & Casmalia St	6	-0.03	200	0	1	1	4	0	4	0	2	0	0	0	0	0	0	4	1	1	0	1
N Locust Ave & N Riverside Ave	6	-0.30	46	0	0	2	4	0	3	1	1	1	0	0	0	0	0	4	0	1	0	0
S Riverside Ave & W Agua Mansa Rd	5	-0.25	40	0	0	2	3	0	2	0	3	0	0	0	0	0	1	2	0	0	0	1
Bloomington Ave & W San Bernardino Ave	5	-0.33	198	1	0	2	2	0	3	0	1	0	0	0	0	1	0	4	0	0	0	0
S Sycamore Ave & E Merrill Ave	5	-0.32	189	0	1	0	4	0	1	0	3	0	1	0	0	0	0	4	0	0	0	0

Intersection	Crashes	Local CCR Differential[1]	EPDO[2]	Fatal	Serious Injury	Other Visible Injury	Complaint of Pain	PDO	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
S Eucalyptus Ave & W Mill St	5	-0.23	30	0	0	0	5	0	3	0	0	2	0	0	0	0	0	3	0	0	0	0
Alder Ave & W Baseline Rd	5	-0.35	35	0	0	1	4	0	0	0	5	0	0	0	0	1	0	4	0	0	0	0
N Locust Ave & Miro Way	5	-0.25	352	0	2	1	2	0	4	1	0	0	0	0	0	0	0	3	0	1	0	0
Marketplace West & Renaissance Parkway	5	-0.10	30	0	0	0	5	0	4	0	1	0	0	0	0	0	0	4	1	0	0	0
S Willow Ave & W Valley Blvd	4	-0.37	34	0	0	2	2	0	2	0	1	1	0	0	0	0	0	2	0	0	0	0
S Lilac Ave & W Randall Ave	4	-0.24	24	0	0	0	4	0	3	1	0	0	0	0	0	0	0	3	0	0	0	0
N Maple Ave & Foothill Blvd	4	-0.35	192	1	0	2	1	0	2	0	1	0	0	0	0	1	0	3	0	0	0	0
N Yucca Ave & W Etiwanda Ave	4	-0.36	188	0	1	1	2	0	3	0	0	1	0	0	0	0	0	3	0	1	0	0
Locust Ave & W Baseline Rd	4	-0.37	24	0	0	0	4	0	2	0	2	0	0	0	0	0	0	2	0	1	0	0
N Maple Ave & W Baseline Rd	4	-0.37	38	0	0	3	1	0	2	1	0	0	1	0	0	0	0	3	0	1	0	1
N Locust Ave & W Casmalia St	4	-0.37	29	0	0	1	3	0	2	0	1	1	0	0	0	0	0	1	0	2	1	0
N Live Oak Ave & N Riverside Ave	4	-0.37	38	0	0	3	1	0	2	1	1	0	0	0	0	0	0	3	0	1	0	0
Riverside Ave & Galway St	4	0.04	29	0	0	1	3	0	2	0	2	0	0	0	0	0	0	4	0	0	0	1
Marketplace East & Renaissance Pkwy	4	-0.22	29	0	0	1	3	0	3	0	1	0	0	0	0	0	0	2	0	0	0	0
Spruce Ave & Valley Blvd	3	-0.40	18	0	0	0	3	0	2	0	1	0	0	0	0	0	0	1	0	0	0	0
S Larch Ave & W Rialto Ave	3	-0.38	18	0	0	0	3	0	1	1	1	0	0	0	0	0	0	2	0	0	0	0
N Pepper Ave & E Winchester Dr	3	-0.41	23	0	0	1	2	0	1	0	0	1	1	0	0	0	0	1	0	1	0	0
N Alder Ave & W Casa Grande Dr	3	-0.34	18	0	0	0	3	0	1	0	2	0	0	0	0	0	0	2	0	0	0	0
Retail Center & Casmalia St	3	-0.34	186	0	1	2	0	0	2	0	0	0	1	0	0	0	0	1	0	1	0	0
Walmart Driveway & San Bernardino Ave	3	669	23	0	0	1	2	0	1	0	2	0	0	0	0	0	0	2	0	1	0	0
Scholl Way & Ayala Drive	3	-0.41	27	0	0	2	1	0	1	1	1	0	0	0	0	0	0	2	0	0	0	0

Intersection	Crashes	Local CCR Differential[1]	EPDO[2]	Fatal	Serious Injury	Other Visible Injury	Complaint of Pain	PDO	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
Unsignalized Intersections																						
S Linden Ave & W Merrill Ave	21	1.54	486	0	2	9	10	0	15	0	2	1	0	0	0	2	1	3	0	0	1	1
S Acacia Ave & E Rialto Ave	16	1.02	270	0	1	3	12	0	11	1	2	2	0	0	0	0	0	8	1	5	0	1
S Lilac Ave & W Merrill Ave	15	0.51	100	0	0	2	13	0	8	0	5	0	0	0	0	0	0	11	0	3	0	1
N Riverside Ave & E 3rd St	14	0.72	416	1	1	3	9	0	14	0	0	0	0	0	0	0	0	1	0	1	1	1
S Sycamore Ave & E San Bernardino Ave	10	0.95	569	1	2	7	0	0	2	0	2	2	3	0	0	0	1	4	0	3	0	0
N Ayala Dr & N Fitzgerald Ave	10	0.02	79	0	0	4	6	0	6	0	1	1	1	0	1	0	0	2	0	1	0	0
W Agua Mansa Rd & W Agua Mansa Rd	9	0.52	64	0	0	2	7	0	6	1	0	2	0	0	0	0	0	0	0	0	0	0
Enterprise Dr & Resource Dr	9	1.00	544	0	3	3	3	0	4	3	0	0	0	1	0	1	0	0	0	0	0	0
S Cactus Ave & W San Bernardino Ave	9	0.22	55	0	0	0	9	0	8	0	1	0	0	0	0	0	0	6	1	1	1	1
S Acacia Ave & E Merrill Ave	8	0.21	53	0	0	1	7	0	6	0	2	0	0	0	0	0	0	6	0	0	0	0
S Willow Ave & W Slover Ave	7	0.08	364	2	0	1	4	0	5	0	1	0	0	0	0	0	0	2	0	0	0	0
N Lilac Ave & W Rialto Ave	7	0.17	43	0	0	0	7	0	7	0	0	0	0	0	0	0	0	4	0	0	1	0
Cactus Ave & Slover Ave	6	0.09	41	0	0	1	5	0	4	0	1	1	0	0	0	0	0	1	0	0	1	0
S Alice Ave & W Valley Blvd	6	0.04	50	0	0	3	3	0	3	0	3	0	0	0	0	0	0	5	0	0	0	0
S Riverside Ave & E Alru St	6	0.12	55	0	0	4	2	0	2	0	3	0	0	0	1	0	0	1	0	2	0	0
S Clifford Ave & W Orchard St	6	0.43	209	1	0	3	2	0	1	1	2	0	1	0	0	1	0	2	0	1	0	0
S Larch Ave & W Merrill Ave	6	0.07	363	0	2	2	2	0	4	0	1	0	0	0	0	1	0	1	0	0	0	0
S Sycamore Ave & E Rialto Ave	6	0.20	46	0	0	2	4	0	5	0	0	1	0	0	0	0	0	0	0	0	0	0
S Eucalyptus Ave & E Rialto Ave	6	0.25	41	0	0	1	5	0	5	0	0	0	1	0	0	0	0	2	0	0	0	0
N Cedar Ave & W 2nd St	6	-0.07	204	0	1	2	3	0	6	0	0	0	0	0	0	0	1	0	0	0	0	2
N Riverside Ave & W Rosemary Ln	6	-0.05	204	0	1	2	3	0	1	0	2	1	1	0	0	1	0	3	0	0	0	0

Intersection	Crashes	Local CCR Differential[1]	EPDO[2]	Fatal	Serious Injury	Other Visible Injury	Complaint of Pain	PDO	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
N Yucca Ave & W Walnut Ave	6	0.02	46	0	0	2	4	0	3	0	1	2	0	0	0	0	0	2	0	0	0	0
N Locust Ave & W Casa Grande Dr	6	0.09	50	0	0	3	3	0	2	0	0	1	3	0	0	0	0	2	0	2	0	0
S Riverside Ave & Industrial Dr	5	0.00	203	1	0	3	1	0	2	0	0	2	0	0	1	0	1	3	0	1	0	0
S Sycamore Ave & E Randall Ave	5	0.09	35	0	0	1	4	0	5	0	0	0	0	0	0	0	0	3	0	2	0	1
S Riverside Ave & E James St	5	0.06	357	1	1	2	1	0	0	0	2	1	1	0	0	1	0	1	0	1	0	0
S Spruce Ave & W Merrill Ave	5	0.02	194	0	1	1	3	0	2	0	3	0	0	0	0	0	0	3	0	0	0	0
S Sycamore Ave & E Wilson St	5	0.34	35	0	0	1	4	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1
N Palm Ave & W Foothill Blvd	5	-0.08	30	0	0	0	5	0	4	0	1	0	0	0	0	0	0	0	0	1	0	0
N Magnolia Ave & E Foothill Blvd	5	0.00	40	0	0	2	3	0	4	0	1	0	0	0	0	0	0	1	0	0	0	0
N Pepper Ave & E Etiwanda Ave	5	-0.03	30	0	0	0	5	0	4	0	0	1	0	0	0	0	0	3	0	1	0	0
N Acacia Ave & E Etiwanda Ave	5	0.26	35	0	0	1	4	0	4	0	0	0	1	0	0	0	0	5	0	0	0	0
N Idyllwild Ave & W Baseline Rd	5	-0.06	49	0	0	4	1	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
N Willow Ave & W Winchester Dr	5	0.28	35	0	0	1	4	0	2	1	1	1	0	0	0	0	0	0	0	1	0	0
Pepper Ave & Renaissance Pkwy	5	0.00	30	0	0	0	5	0	1	0	3	0	1	0	0	0	0	3	0	1	0	0
E Shamwood Ave & N Riverside Ave	5	8.93	44	0	0	3	2	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
S Willow Ave & W Santa Ana Ave	4	0.22	24	0	0	0	4	0	4	0	0	0	0	0	0	0	0	1	0	0	0	0
N Maple Ave & Arrow Blvd	4	-0.08	188	0	1	1	2	0	2	0	0	0	0	0	0	1	0	0	0	1	0	0
Palmetto Ave & Baseline Ave	4	0.31	188	0	1	1	2	0	4	0	0	0	0	0	0	0	0	1	0	0	0	0
Riverside Ave & E 2nd St	4	0.00	41	0	0	3	1	0	3	0	1	0	0	0	0	0	1	0	0	2	0	0
N Olive Ave & E Foothill Blvd	4	-0.11	34	0	0	2	2	0	3	0	1	0	0	0	0	0	0	1	0	0	0	0
N Larch Ave & W Foothill Blvd	4	-0.05	24	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0

Intersection	Crashes	Local CCR Differential[1]	EPDO[2]	Fatal	Serious Injury	Other Visible Injury	Complaint of Pain	PDO	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
N Yucca Ave & W Rosewood St	4	-0.07	34	0	0	2	2	0	3	0	1	0	0	0	0	0	0	0	1	0	0	0
N Riverside Ave & E Madrona St	4	-0.10	346	2	0	1	1	0	1	0	2	0	0	0	0	1	0	1	0	0	0	0
N Lilac Ave & W Shamrock St	4	22.70	29	0	0	1	3	0	2	0	1	1	0	0	0	0	0	2	0	0	0	0
N Willow Ave & W Shamrock St	4	0.02	188	0	1	1	2	0	3	0	1	0	0	0	0	0	0	0	0	1	0	0
N Lilac Ave & W Jackson St	4	0.41	34	0	0	2	2	0	2	0	1	0	0	0	0	1	0	1	0	1	0	1
N Lilac Ave & W Walnut Ave	4	0.21	29	0	0	1	3	0	2	0	0	0	1	0	1	0	0	4	0	0	0	0
N Cedar Ave & W Casmalia St	4	-0.04	24	0	0	0	4	0	1	0	3	0	0	0	0	0	0	4	0	0	1	1
S Lilac Ave & W San Bernardino Ave	3	-0.07	23	0	0	1	2	0	0	0	1	0	0	0	0	2	0	2	0	0	1	1
S Willow Ave & W Randall Ave	3	-0.03	27	0	0	2	1	0	2	0	1	0	0	0	0	0	0	1	0	1	0	1
S Spruce Ave & W Fromer St	3	1.57	18	0	0	0	3	0	2	0	1	0	0	0	0	0	0	1	0	0	0	0
S Sycamore Ave & E Grant St	3	0.06	340	0	2	1	0	0	0	0	0	1	0	1	0	1	0	1	0	0	0	0
S Maple Ave & Merrill Ave	3	-0.04	181	1	0	1	1	0	2	0	0	0	0	0	0	1	1	1	0	1	0	0
S Cedar Ave & W Durst Dr	3	-0.14	27	0	0	2	1	0	1	0	1	1	0	0	0	0	0	1	0	0	0	1
S Riverside Ave & W South St	3	-0.09	18	0	0	0	3	0	2	0	1	0	0	0	0	0	0	1	0	0	1	0
S Riverside Ave & W Bonnie View Dr	3	-0.11	23	0	0	1	2	0	0	0	3	0	0	0	0	0	0	2	0	1	0	0
N Lilac Ave & Holladay Pl	3	0.26	23	0	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	1	0	0
N Millard Ave & W Foothill Blvd	3	-0.11	177	0	1	0	2	0	2	0	0	0	0	0	0	1	0	1	0	0	0	0
N Cedar Ave & W Grove St	3	-0.14	23	0	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
N Acacia Ave & E Ramona Dr	3	0.04	181	1	0	1	1	0	1	0	0	2	0	0	0	0	0	1	1	0	0	0
N Willow Ave & W Grove St	3	0.35	27	0	0	2	1	0	3	0	0	0	0	0	0	0	1	0	1	0	0	0
N Riverside Ave & W Cornell Dr	3	-0.13	181	1	0	1	1	0	3	0	0	0	0	0	0	0	2	0	0	0	0	0

Intersection	Crashes	Local CCR Differential[1]	EPDO[2]	Fatal	Serious Injury	Other Visible Injury	Complaint of Pain	PDO	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
N Linden Ave & W Etiwanda Ave	3	0.02	23	0	0	1	2	0	1	0	1	1	0	0	0	0	0	2	0	0	0	0
N Idyllwild Ave & W Etiwanda Ave	3	0.21	23	0	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
N Riverside Ave & E Holly St	3	-0.13	27	0	0	2	1	0	1	0	0	1	1	0	0	0	0	1	0	2	0	0
N Willow Ave & W Shamrock St	3	0.06	18	0	0	0	3	0	2	0	1	0	0	0	0	0	0	1	0	0	0	0
N Fitzgerald Ave & W Mesa Dr	3	-0.13	23	0	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
N Riverside Ave & N Alice Ave	3	-0.12	23	0	0	1	2	0	2	1	0	0	0	0	0	0	0	0	0	1	0	0
N Riverside Ave & E Condor Dr	3	3.66	23	0	0	1	2	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0
W Casmalia St & N Riverside Ave	3	-0.09	32	0	0	3	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0
N Cedar Ave & Bohnert Ave	3	0.88	18	0	0	0	3	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0
Country Club Dr & N Riverside Ave	3	0.64	23	0	0	1	2	0	2	0	1	0	0	0	0	0	0	2	0	0	0	0
N Locust Ave & W Persimmon Ave	3	-0.10	27	0	0	2	1	0	1	0	0	1	1	0	0	0	0	0	0	1	0	0
Maple Ave & W Persimmon Ave	3	1.10	23	0	0	1	2	0	3	0	0	0	0	0	0	0	0	2	0	0	0	0
N Linden Ave & N Riverside Ave	3	-0.12	23	0	0	1	2	0	2	0	1	0	0	0	0	0	0	1	0	0	0	0
N Orangewood Ave & W Terra Vista Dr	3	0.24	186	0	1	2	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0

1. Local Critical Crash Rate Differential

2. Equivalent Property Damage Only Crashes

Table 5: Crash Analysis Results – Roadway Segments

Facility	Limits	Crashes	Local CCR Differential[1]	EPDO[2]	Fatal	Serious Injury	Other Visible Injury	Complaint of Pain	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
Major Arterial																						
S Riverside Ave	W Valley Blvd & W San Bernardino Ave	21	0.06	477	0	2	7	12	6	1	8	1	3	0	1	1	1	11	0	2	0	1
S Riverside Ave	W San Bernardino Ave & E Randall Ave	19	0.00	293	0	1	4	14	6	1	6	3	0	1	0	2	0	8	0	2	0	1
S Riverside Ave	Miguel Bustamante Pkwy & W Agua Mansa Rd	13	45.51	275	1	0	8	4	6	0	5	0	2	0	0	0	0	4	0	3	0	2
E Foothill Blvd	N Sycamore Ave & N Acacia Ave	9	0.18	64	0	0	2	7	4	1	2	0	0	0	1	1	0	2	0	0	1	0
N Riverside Ave	E Walnut Ave & W Easton St	9	-0.16	223	0	1	2	6	4	0	5	0	0	0	0	0	0	4	0	1	0	0
W Foothill Blvd S	N Cedar Ave & N Larch Ave	9	20.13	69	0	0	3	6	4	3	0	1	1	0	0	1	0	2	0	1	0	2
E Foothill Blvd	N Acacia Ave & N Eucalyptus Ave	8	0.07	58	0	0	2	6	5	0	2	0	0	0	1	0	1	2	0	2	0	2
N Riverside Ave	E Base Line Rd & N Alice Ave	8	-0.01	230	0	1	5	2	6	0	1	0	0	0	0	1	0	0	0	1	0	0
S Riverside Ave	W Jurupa Ave & Industrial Dr	5	0.13	506	0	3	0	2	0	0	1	1	2	1	0	0	0	3	0	1	2	1
S Riverside Ave	W Santa Ana Ave & W Mindanao St	5	-0.37	511	1	2	1	1	1	0	2	1	0	0	0	1	1	1	0	0	1	0
E Foothill Blvd	N Eucalyptus Ave & N Pepper Ave	4	-0.01	24	0	0	0	4	3	0	0	1	0	0	0	0	0	0	1	0	0	1
N Riverside Ave	N Ashford Ave & N Locust Ave	4	-0.40	34	0	0	2	2	1	0	2	0	1	0	0	0	0	3	0	0	0	1
N Riverside Ave	N Alice Ave & W Cascade Dr	3	40.63	27	0	0	2	1	3	0	0	0	0	0	0	0	0	1	0	0	0	0
N Riverside Ave	Redwood Ave & Sierra Ave	3	-0.48	177	1	0	0	2	0	0	1	1	0	0	0	1	0	1	0	1	1	0
W Foothill Blvd S	N Linden Ave & N Cedar Ave	3	-0.33	177	1	0	0	2	0	0	2	0	0	0	0	1	0	2	0	0	0	0
Bloomington Ave S	Larch Ave & W San Bernardino Ave	3	-0.21	27	0	0	2	1	1	0	1	0	1	0	0	0	0	0	0	1	0	0
S Riverside Ave	Industrial Dr & W Bryant St	3	-0.16	340	0	2	1	0	1	0	0	1	0	0	1	0	0	1	0	1	0	0

Facility	Limits	Crashes	Local CCR Differential[1]	EPDO[2]	Fatal	Serious Injury	Other Visible Injury	Complaint of Pain	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
S Riverside Ave	W Agua Mansa Rd & Singleton Dr	3	-0.27	177	1	0	0	2	0	1	1	0	0	0	0	1	0	1	0	0	0	0
S Riverside Ave	Ramp_112381 & Ramp_112380	3	-0.27	27	0	0	2	1	3	0	0	0	0	0	0	0	0	2	0	1	0	0
N Riverside Ave	E Wabash St & E Base Line Rd	3	-0.43	186	0	1	2	0	1	0	0	1	0	0	0	1	0	0	0	2	0	0
S Riverside Ave	Resource Dr & W Jurupa Ave	3	-0.42	181	0	1	1	1	1	1	0	0	1	0	0	0	1	1	0	0	1	1
W Foothill Blvd	N Larch Ave & N Spruce Ave	3	-0.46	181	0	1	1	1	0	0	2	0	0	0	0	1	1	1	0	0	1	0
S Riverside Ave S	W Bonnie View Dr & W Rialto Ave	3	-0.44	186	1	0	2	0	0	0	1	0	2	0	0	0	1	3	0	0	0	0
Minor Arterial																						
W Baseline Rd	N Willow Ave & N Riverside Ave	16	1.81	265	0	1	2	13	10	4	0	0	0	0	0	2	0	1	0	1	0	2
W Merrill Ave	S Willow Ave & Bloomington Ave	6	0.80	50	0	0	3	3	2	1	1	1	0	0	0	1	0	1	0	1	0	1
W Rialto Ave	N Maple Ave & S Linden Ave	5	0.32	35	0	0	1	4	3	0	1	1	0	0	0	0	0	1	0	0	0	0
W Merrill Ave	S Linden Ave & S Cedar Ave	4	0.76	351	0	2	2	0	0	0	1	1	1	0	0	1	1	1	0	0	1	0
W Agua Mansa Rd	& W Agua Mansa Rd	4	0.68	29	0	0	1	3	1	0	0	1	2	0	0	0	0	1	0	0	0	1
N Ayala Dr S	N Fitzgerald Ave & N Fitzgerald Ave	3	-0.09	23	0	0	1	2	1	0	0	0	2	0	0	0	0	2	0	0	0	0
W Baseline Rd S	N Lilac Ave & Willow Ave	3	0.15	23	0	0	1	2	0	1	2	0	0	0	0	0	0	2	0	0	0	0
W Rialto Ave	S Cedar Ave & S Larch Ave	3	0.58	23	0	0	1	2	1	1	1	0	0	0	0	0	0	1	0	0	0	1
Collector Arterial																						
N Linden Ave	Lorraine Pl & W Foothill Blvd	4	3.49	188	0	1	1	2	2	1	0	0	0	0	0	1	0	0	0	0	0	0
N Eucalyptus Ave	E Mc Kinley St & E Foothill Blvd	4	2.57	34	0	0	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0
E Walnut Ave	N Riverside Ave & N Sycamore Ave	3	2.35	18	0	0	0	3	1	1	1	0	0	0	0	0	1	1	0	0	0	0
S Lilac Ave	W Merrill Ave & W Rialto Ave	3	0.76	186	0	1	2	0	1	0	0	0	1	0	0	1	0	1	0	1	0	0

Facility	Limits	Crashes	Local CCR Differential[1]	EPDO[2]	Fatal	Serious Injury	Other Visible Injury	Complaint of Pain	Broadside	Sideswipe	Rear End	Head On	Hit Object	Overturned	Other	Pedestrian	Bicycle	Aggressive	Distracted	Impaired	Dark	Wet
N Willow Ave	Base Line Rd & W Winchester Dr	3	0.51	27	0	0	2	1	0	1	2	0	0	0	0	0	0	2	0	0	1	0
N Eucalyptus Ave	E Walnut Ave & E Easton St	3	2.99	177	0	1	0	2	0	0	0	1	1	0	0	2	0	1	0	0	0	1
Local Arterial																						
N Linden Ave	Miro Way & Renaissance Pkwy	6	3.52	204	1	0	2	3	1	0	3	1	0	0	0	1	0	3	0	0	1	0
N Linden Ave	W Wildflower St & W Persimmon Ave	4	3.52	29	0	0	1	3	2	1	0	1	0	0	0	0	0	0	0	0	0	0
W Casmalia St	Laurel Ave & N Locust Ave	3	0.15	23	0	0	1	2	0	1	1	1	0	0	0	0	0	1	0	0	0	0
W Casmalia St	Sierra Ave &Ave & Alder Ave	3	-0.30	32	0	0	3	0	0	0	1	1	0	1	0	0	0	1	0	0	0	0
N Linden Ave	Miro Way & Miro Way	3	0.04	18	0	0	0	3	2	0	0	1	0	0	0	0	0	0	0	0	0	0
W Casmalia St	Alder Ave & Laurel Ave	3	-0.08	23	0	0	1	2	1	1	0	0	1	0	0	0	0	1	0	0	0	0
Casmalia St	N Locust Ave & N Linden Ave	3	1349.42	23	0	0	1	2	0	0	0	1	1	1	0	0	0	0	0	1	0	0

1. Local Critical Crash Rate Differential

2. Equivalent Property Damage Only Crashes

6. ENGAGEMENT AND COLLABORATION

Members of the public and local agency partners were included in the development of the SAP to ensure the local perspective was maintained at the forefront of planning efforts. A public agency working group was created of City Public Works staff and external representatives from the Law enforcement/Police Department. Attendees and represented agencies also included the Budget and Finance Department, the Deputy Director of Maintenance and Facilities, City of Rialto CIP Project Management, the Director of Public Works, San Bernardino County Transportation Authority, Omnitrans, San Bernardino County Traffic Engineering Department, City of Colton Public Works Department, City of San Bernardino traffic Engineering, and San Bernardino County Public Works.

The members of the public agency partners were called together to offer insight on the safety issues presenting the City's transportation network. After the initial network screening and safety analysis, the results were presented to the public in a series of workshops. These workshops helped the project team gain insight into ongoing roadway safety issues in the City and potential solutions. City Public Works, the agency partners, and consultant staff met to discuss potential countermeasures and challenge areas through meetings in the field and in-person. Following these meetings, potential improvements were developed and presented to the public for comment, feedback, and discussion. The public engagement and agency coordination activities are discussed below.

6.1 PUBLIC ENGAGEMENT

Online Engagement

The City of Rialto created a Safety Action Plan page on the City's website, which included information about the project, notification about upcoming workshops and events, a project email address, and an interactive mapping activity and survey. A 10-question online survey was created, both in English and Spanish, and posted to the City website from November 21st, 2024 to January 20th, 2025. 23 respondents replied to the survey.

Results of this survey indicated that more sidewalk and pedestrian improvements should be prioritized to enhance safety in the City, followed by more roadway and intersection improvements, and more bike lane and bicycle improvements. Aggressive driving, impaired driving, and pedestrian and intersection safety were the main traffic-related safety concerns in the City.

Results indicated that installing more lighting, reducing sidewalk gaps, and widening sidewalks would make walking around the City more appealing. Results also indicated that completing bike networks, installing bike lane protection, and widening bike lanes would make biking around the City more appealing.

To make using public transportation around the City more appealing, results indicated that more frequent service, bus shelters/benches, and sufficient onboard safety would be helpful. To enhance the comfort of walking, biking, and using public transportation, most results indicated that curb extensions and dedicated bike and pedestrian signals would be appealing. A full summary of the responses collected as part of the online public survey is located in **Appendix B**.

6.2 PUBLIC WORKSHOPS AND MEETINGS

One public workshop/meeting was held to help the project team understand public areas of concern, create public awareness of the plan, and keep members of the public informed about the direction of the plan and the City's response to roadway safety issues from input received from the public.

The public workshop was held on August 6th, 2024, at Rialto National Night Out, a nationally recognized event promoting police-community partnerships and neighborhood camaraderie. The goal of the National Night Out workshop was to strengthen community awareness of the Safety Action Plan and gather public feedback. The booth included a large map, where attendees could place notes about locations they were concerned about. Additionally, digital and written safety surveys were available to fill out for comments and concerns. The main concerns expressed at this workshop included speeding, traffic calming, pedestrian and bicyclist safety issues, and visibility concerns at several locations. Online survey results also outlined a need for traffic calming measures, wider sidewalks, sidewalk gap closures, and crosswalks, etc. The feedback and comments received at the National Night Out workshop was crucial in identifying locations with safety concerns in Rialto.

6.3 STAKEHOLDER MEETINGS

Two stakeholder meetings were held to gain the perspective and expertise of local subject matter experts and to help guide the plan as it was being developed.

The first stakeholder meeting was held online on June 27th, 2024. The group was introduced to the project, the project team, timeline, and the goals and objectives of a safety action plan. Stakeholders joined from local and regional law enforcement, fire, ADA advocacy groups, transit agencies, educational agencies, and pedestrian and bicycle advocacy groups. The project team analyzed several grant opportunities and examples of grant projects. The most prominent example was the intersection of Cedar Avenue and Merrill Avenue. This intersection is in the process of receiving protected left turn phases, video detection systems, pedestrian countdown heads, and a leading pedestrian interval (LPI). Additionally, citywide collision trends by crash type, level of injury, and cause were also analyzed with the stakeholders and compared to statewide levels. Finally, 11 case study intersections and segments were analyzed. The discussion and feedback from the stakeholders helped to inform the project development that will be discussed later in the plan.

The second stakeholder meeting was held online on October 3rd, 2024, and followed in the footsteps of the first meeting. The purpose of the meeting was to provide a progress report on the Safety Action Plan and discuss public workshops, HSIP applications, and citywide demographics and traffic volume trends. The meeting was attended by city staff and representatives from Omnitrans and the City of San Bernardino, the latter expressing interest in coordinating on bicyclist and pedestrian connections to and from Rialto.

7. EQUITY

The following section summarizes the equity analysis conducted for the City of Rialto Comprehensive Traffic Safety Action Plan (Safety Plan). The Safety Plan aims to enhance roadway safety conditions by proposing potential projects to reduce the risk of collisions.

The purpose of this memo is to report on the equity analysis to identify programs and infrastructure investments for the City of Rialto to support transportation and safety policies. The memo first provides the equity framework used to guide the analysis followed by a summary of the methodology. The memo then provides an equity analysis of demographics and collisions, followed by general takeaways related to the equity and safety data. The analysis informs policy and program recommendations for the City to equitably improve safety in accordance with state and federal equity goals.

7.1 EQUITY FRAMEWORK

The equity analysis supplements technical collision data analysis by identifying any correlations between equity and safety data, in accordance with federal and state regulations. A comparative analysis between demographic and collision data provides insights on equity that can be addressed through safety improvements and infrastructure. This ensures that vulnerable and disadvantaged populations can benefit from additional safety considerations. Meeting the needs of equity populations is a critical step in equitable distribution of resources and outcomes. As such, the equity analysis aims to summarize key safety and equity findings.

7.1.1 Federal Policies

Equity analysis in transportation planning became solidified by two key federal policies: Title VI of the Civil Rights Act of 1964 and Executive Order (EO) 12898 in 1994. Title VI of the Civil Rights Act of 1964 prohibits discrimination on the basis of race, color, and national origin in programs and activities receiving federal financial assistance. Executive Order (EO) 12898 directs all federal agencies to develop an Environmental Justice strategy that, "identifies and addresses the disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." Both policies mandate transportation agencies to identify, address and serve disadvantaged communities through their work. More recently in 2021, Executive Order 14008 was signed establishing Justice 40 with the goal that 40 percent of the overall benefits of certain Federal investments flow to disadvantaged communities.

7.1.2 State Policies

California SB 535 (2012) directs investments of cap-and-trade funds towards "Disadvantaged Communities" (DACs). The SB 535 Disadvantaged Communities map (2022) was established to identify DACs throughout the state of California. The map uses data from CalEnviroScreen.

The equity analysis conducted as part of the memo initiated with an analysis of the 2022 California Environmental Protection Agency (CalEPA) SB 535 Disadvantaged Communities Map and 2022 Justice 40 Tracts Map to determine if any tracts within the city were considered disadvantaged communities.

7.1.3 Disadvantaged Communities

Disadvantaged communities face challenges in transportation safety. Data show that minority and low-income groups are more likely to rely on non-motorized forms of transportation, like walking and cycling. This makes them vulnerable road users, as people outside of motor vehicles face greater risk of injury and death from traffic collisions. People of color make up the majority of the population in the City of Rialto. Additionally, the area between SR 210 and I-10 is majority low-income. Another population of note are senior citizens, who are concentrated to the south of I-10 and in the downtown area. Senior citizens who are unable to drive may rely on non-motorized transportation to fulfill their needs. This plan will address the transportation safety challenges these populations face.

Currently, two-thirds of the City's land area is designated as disadvantaged based on CalEnviroScreen statistics, which consider multiple sources of pollution and population characteristics that make communities more sensitive to pollution. **Figure 13** below shows disadvantaged census tracts in the City as designated by CalEnviroScreen.

In addition to CalEnviroScreen, Justice 40 is a program introduced by Executive Order 14008, which makes it a goal to invest 40 percent of the overall benefits of certain Federal climate, clean energy, and affordable housing investments flow to disadvantaged communities that are underinvested and overburdened by pollution. Executive Order 14008 also directed the Council on Environmental Quality (CEQ) to develop a new tool. The Climate and Economic Justice Screening (CEJST) identifies census tracts as disadvantaged based on eight criteria. These include Climate Change, Energy, Health, Housing, Legacy Pollution, Transportation, Water and Wastewater, and Workforce Development. **Figure 14** shows the census tracts in Rialto which are categorized as disadvantaged in one or more of the eight categories.

Figure 13: CalEnviroScreen Disadvantaged Census Tracts in Rialto

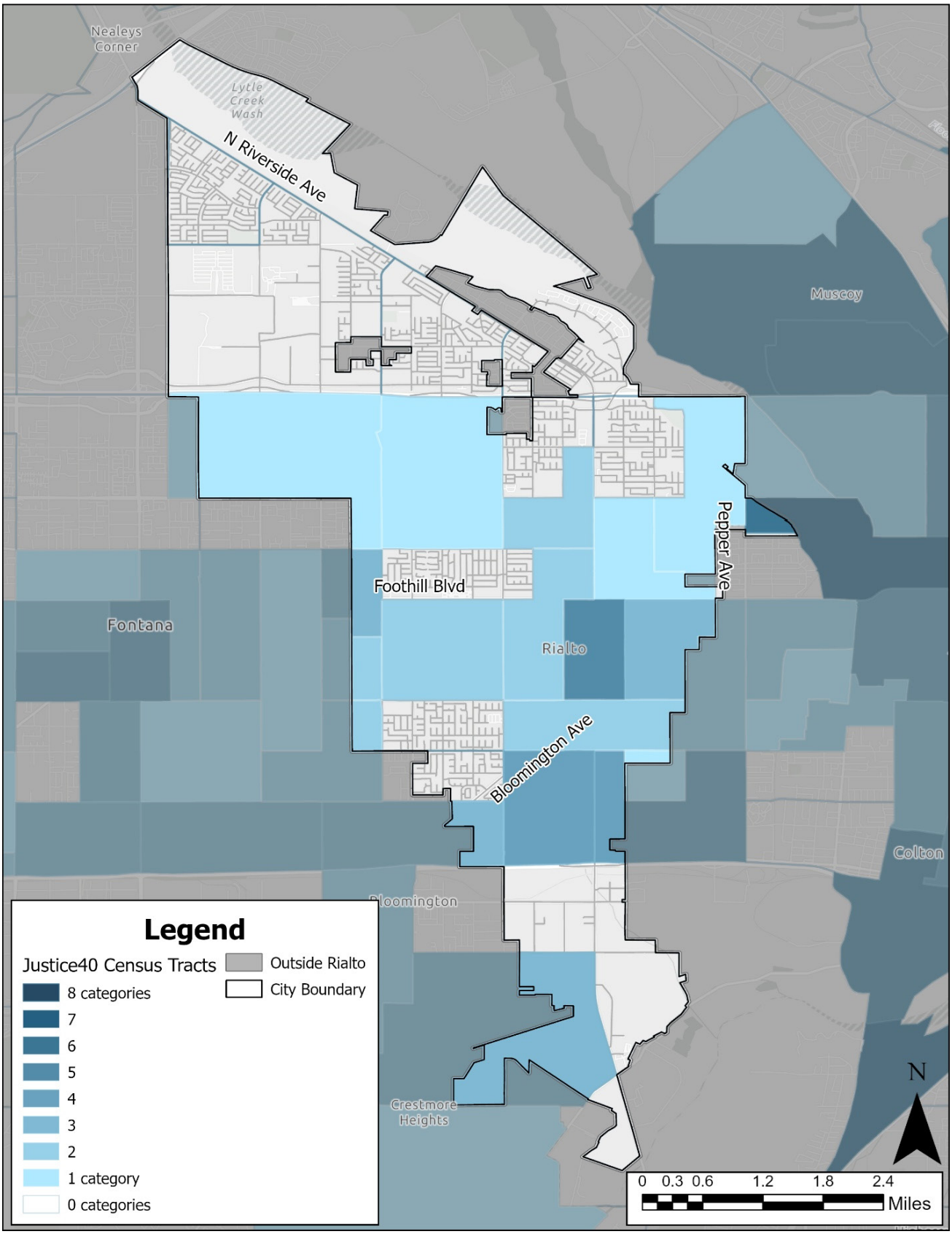
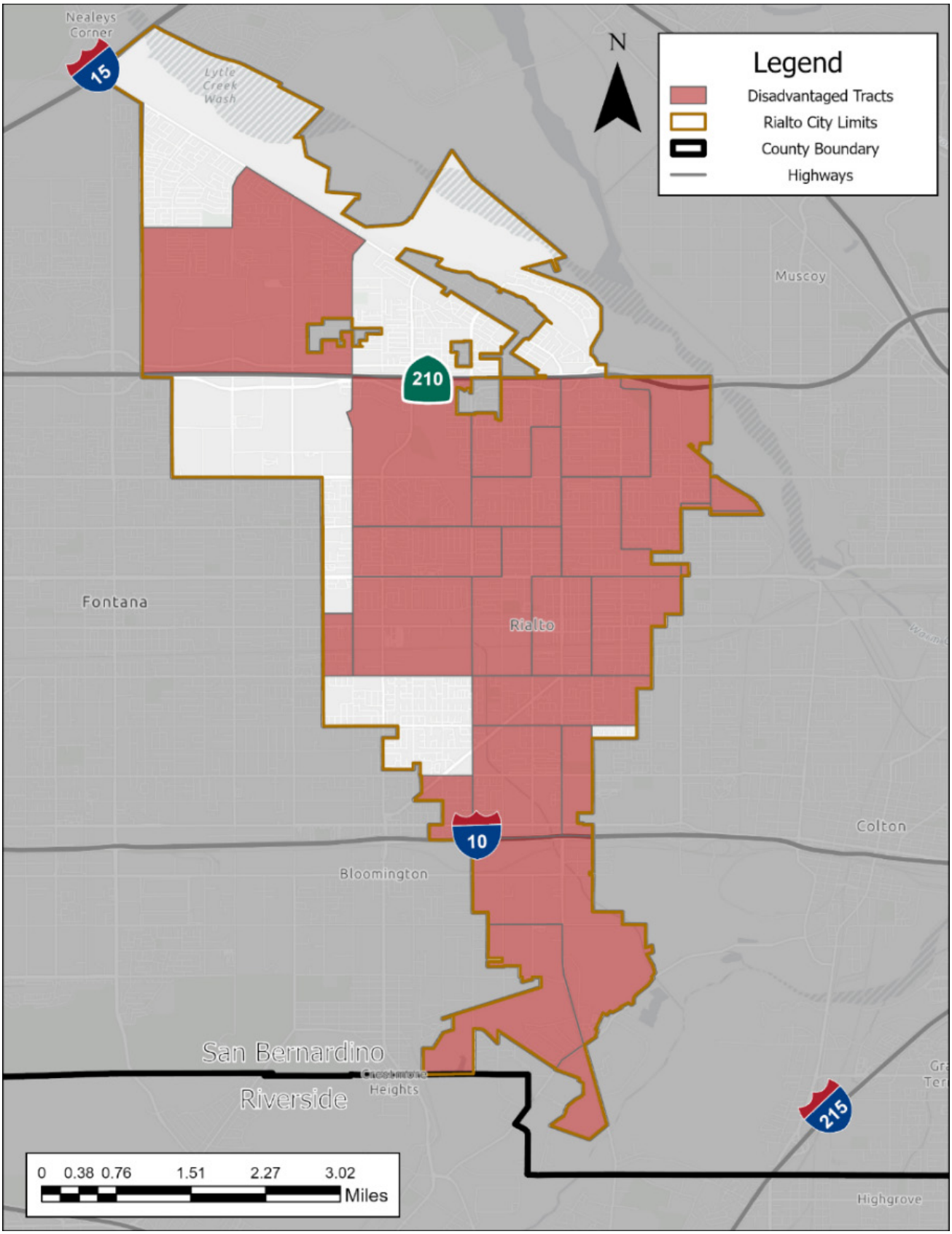


Figure 14: Justice 40 Disadvantaged Tracts in Rialto



7.2 METHODOLOGY

For the purpose of this memo, equity demographics and collision data were analyzed. The equity analysis builds on the crash data memorandum drafted by Kimley-Horn as part of the Comprehensive Traffic Safety Action Plan (CTSAP) development process. This analysis forms the basis for equity policy and program recommendations provided in this memo.

Demographic data for the city's population was collected from the United States Census American Community Survey (US ACS) 5-year estimates for 2022 for total population by race/ethnicity, age, and income to identify equity communities within the city.

In addition to the City of Rialto having a majority non-white population, commuting data for employees travelling to the City were also collected from the Longitudinal Employer-Household Dynamics (LEHD) Origin-Destination Employment Statistics (LODES) database for 2021. Employee travel data for those travelling to the City from surrounding census tracts within San Bernardino and Riverside counties was gathered, as well as minority data from the same census tracts. The correlation of these two datasets was used to characterize demographic characteristics of commuters to the City who may use transportation infrastructure reflected in the City collision data.

Lastly, collision data from 2018 to 2022 was sourced from the Statewide Integrated Traffic Records System (SWITRS). The data included bicycle, pedestrian, and automobile collision counts for the City of Rialto. Collision data was filtered by race/ethnicity and age to complete a comparative analysis of existing safety conditions. The collision data informed key findings for each demographic category.

In addition to analyzing demographic, employee, and collision data, the team cross referenced the California Environmental Protection Agency (CalEPA) SB 535 Disadvantaged Communities, and the United States Department of Transportation (USDOT) Disadvantaged Communities Justice 40 online databases as referenced above.

The analysis presents findings on equity data collected at the city level, regional level, and state and federal level.

7.3 EQUITY ANALYSIS

This section summarizes demographic data for the City of Rialto, employee commute data for workers travelling to the City, and statewide collision safety data.

7.3.1 Race/Ethnicity

The City of Rialto, located in San Bernardino County, is situated between the cities of San Bernardino and Redlands to the East, and the city of Fontana to the West. **Table 6** provides a summary of the population in Rialto by race/ethnicity. Rialto is within the top 10 largest cities in San Bernardino County with a population of 103,873 according to the US Census Bureau. The City's population is predominately Hispanic (75.1%), followed by Black (11.8%), White (8.9%), Asian (1.9%), Two or More (1.4%), and less than 0.5% of the population is classified as American Indian and Alaska Native or Native Hawaiian and Other Pacific Islander.

7.3.2 Race/Ethnicity

Table 7 provides a summary of the population of Rialto by age. According to the US Census Bureau, the City's population is distributed evenly, with ages of 15 and under making up the largest share (22.1%) of the population.

7.3.3 Income

Table 8 provides a summary of the percentage of households in Rialto by Income. According to the US Census Bureau, the City of Rialto has a median household income of $85,585. The total number of households in the City is 27,295 households. As shown in **Table 3**, of all the households in the City, 28.8% have an income of less than $50,000.

7.3.4 County Demographics

The City of Rialto has workers that travel from surrounding cities for employment. According to the LEHD LODES data from 2021, approximately 37,375 people commute into the city from surrounding census tracts and cities. **Figure 15** shows the concentration of workers travelling to the City of Rialto from surrounding cities. Many workers travel from Fontana, Bloomington, and San Bernardino to Rialto. **Figure 16** shows the demographic characteristics of workers travelling to the City by minority population from the surrounding cities.

Table 6: Race and Ethnicity in Rialto — 2023 ACS 5-Year Estimates

Race/Ethnicity	# of People by Race/Ethnicity	% of People by Race/Ethnicity
Hispanic	78,091	75.18%
Black	12,269	11.81%
White	9,318	8.97%
Asian	2,037	1.96%
American Indian and Alaska Native	220	0.21%
Native Hawaiian or Other Pacific Islander	38	0.04%
Other	400	0.39%
Two or More	1,500	1.44%
Total	**103,873**	

Table 7: Age Distribution in Rialto — 2023 ACS 5-Year Estimates

Age Range	Number of People by Age	Percentage
Less than 15	22,921	22.1%
15–24	17,699	17.0%
25–34	16,635	16.0%
35–44	14,275	13.7%
45–64	22,142	21.3%
65+	10,201	9.8%
Total	**103,873**	

Table 8: Income Distribution in Rialto — 2023 ACS 5-Year Estimates

Income Range	Percent of Households
Less than $50,000	28.80%
$50,000 to $74,999	16.10%
$ 75,000 to $99,999	13.10%
$100,000 to $149,999	24.30%
$150,000 to $199,999	11.50%
$200,000 +	6.20%

7.4 COLLISIONS BY MODE

A total of 2,125 collisions were reported during a five-year period, with 5,544 people involved in these collisions. Bicycle collisions accounted for 87 collisions while pedestrian collisions accounted for 189 collisions.

Figure 17 shows a summary of the 2018 to 2023 collision data by severity. Additionally, **Figure 18** and **Figure 19** show collision data by severity for pedestrians and bicyclists, respectively.

Figure 15: Concentration of Workers to Rialto by Census Tract — 2023 Longitudinal Employer Household Dynamics (LEHD)

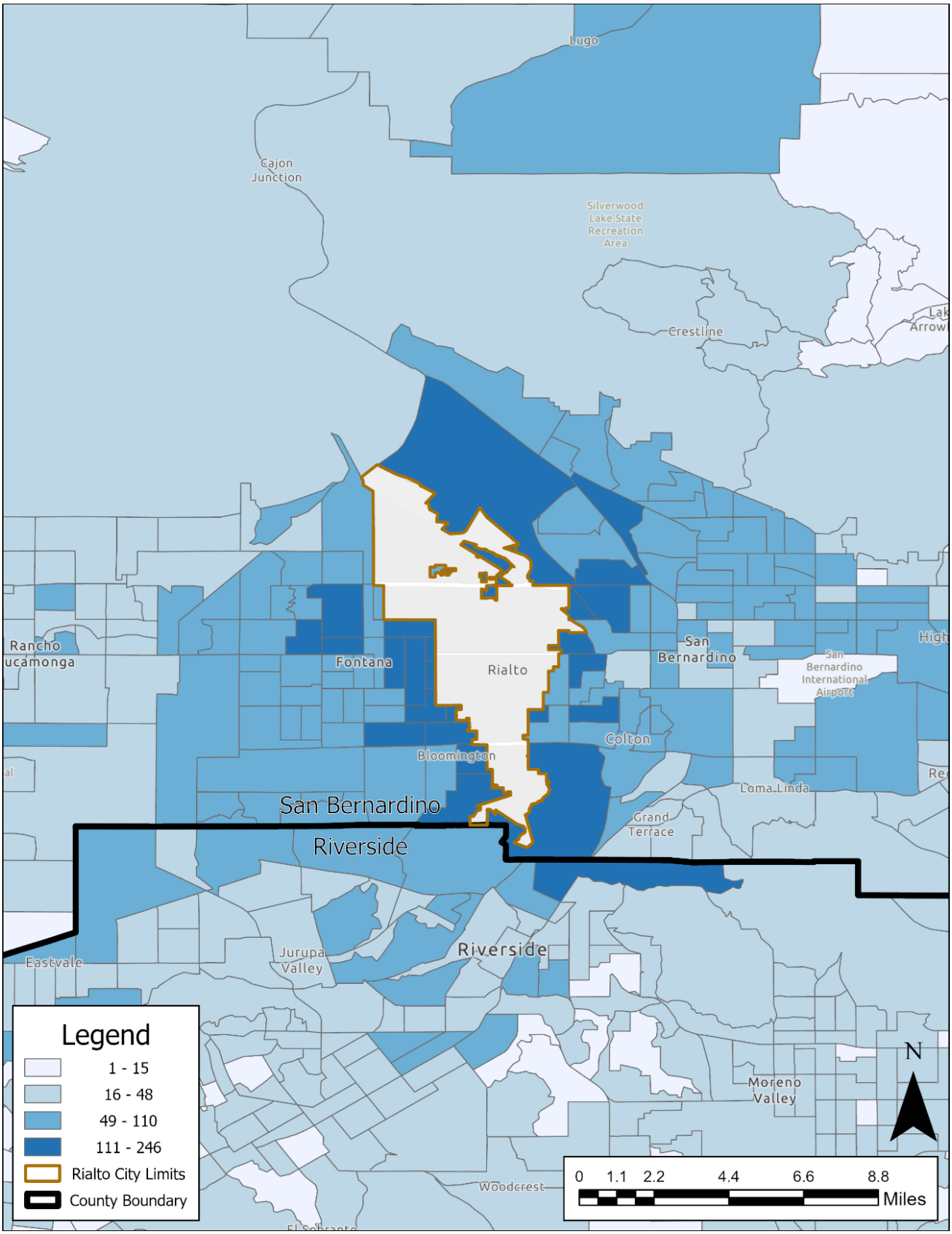


Figure 16: Percentage of Minority Population by Census Tract — 2023 ACS 5-Year Estimates

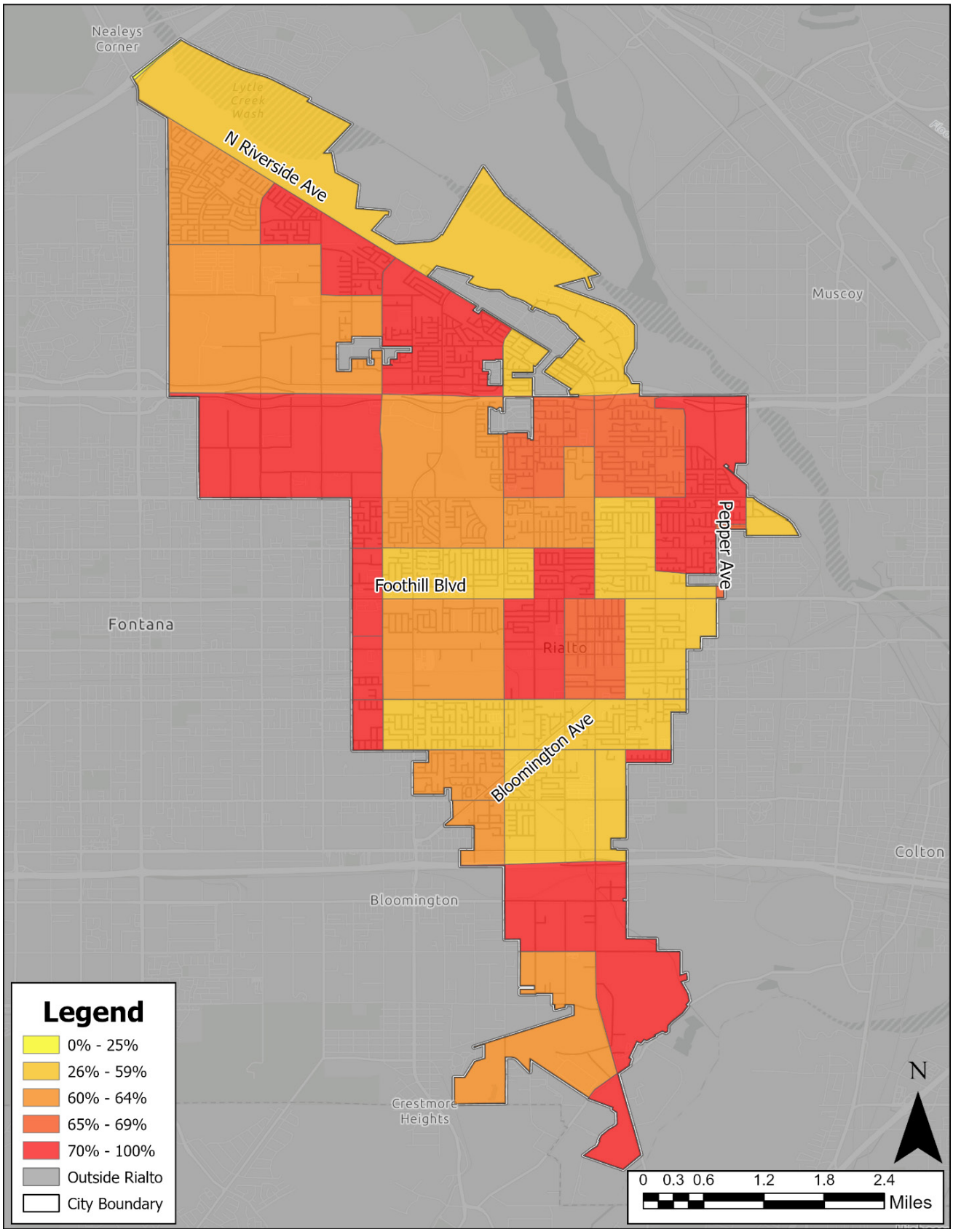


Figure 17: Collisions by Severity (2018–2023)

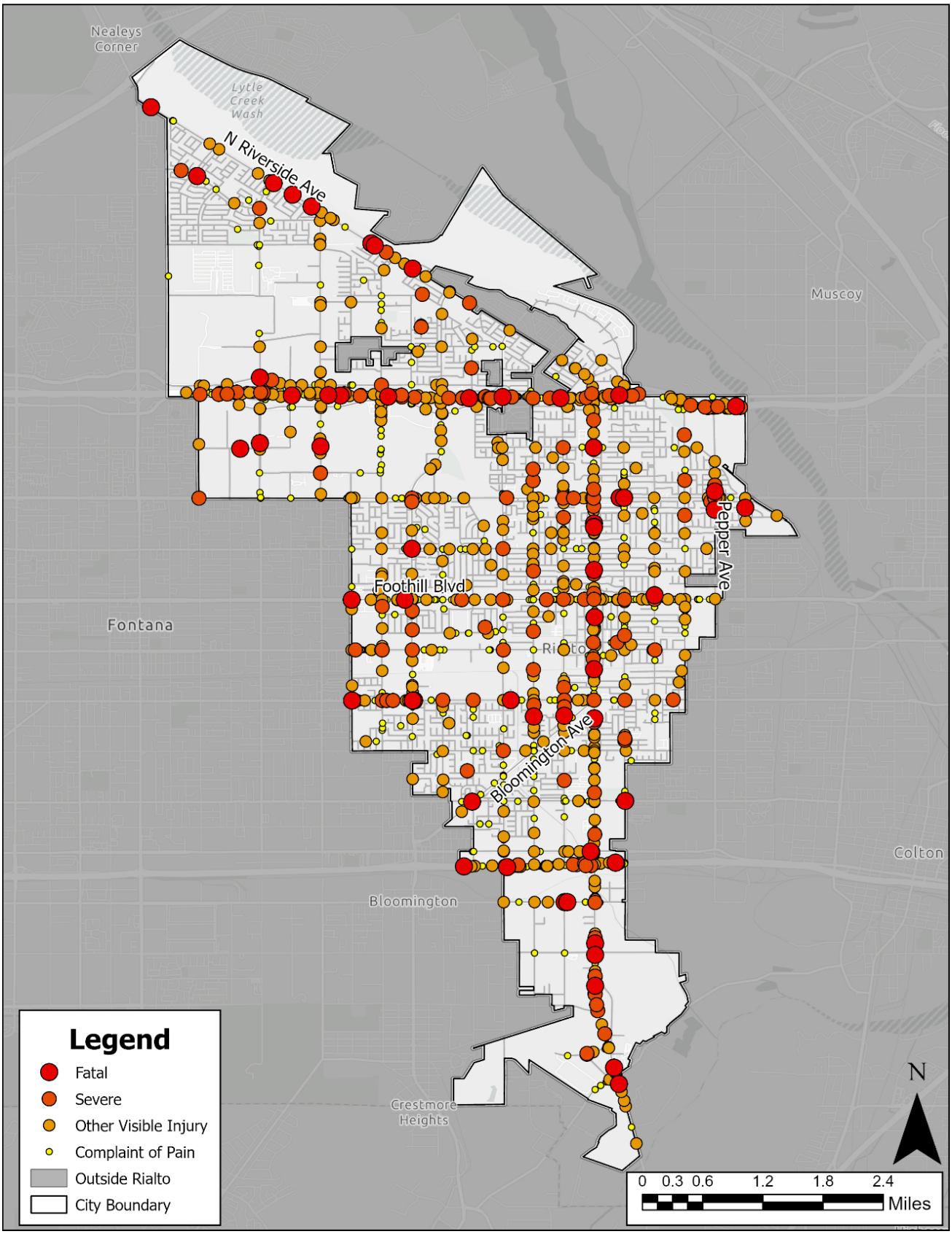


Figure 18: Pedestrian Collisions by Severity (2018–2023)

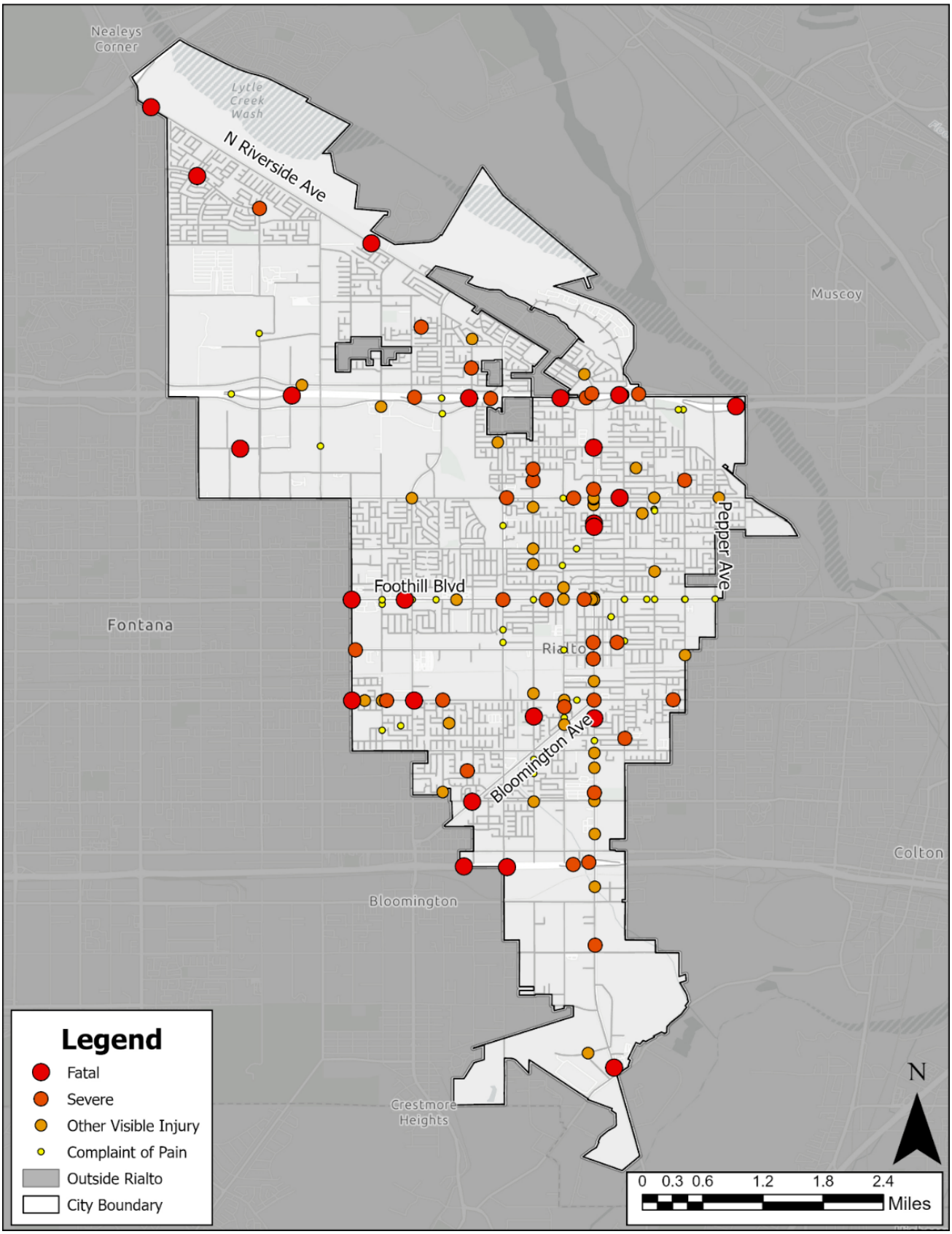
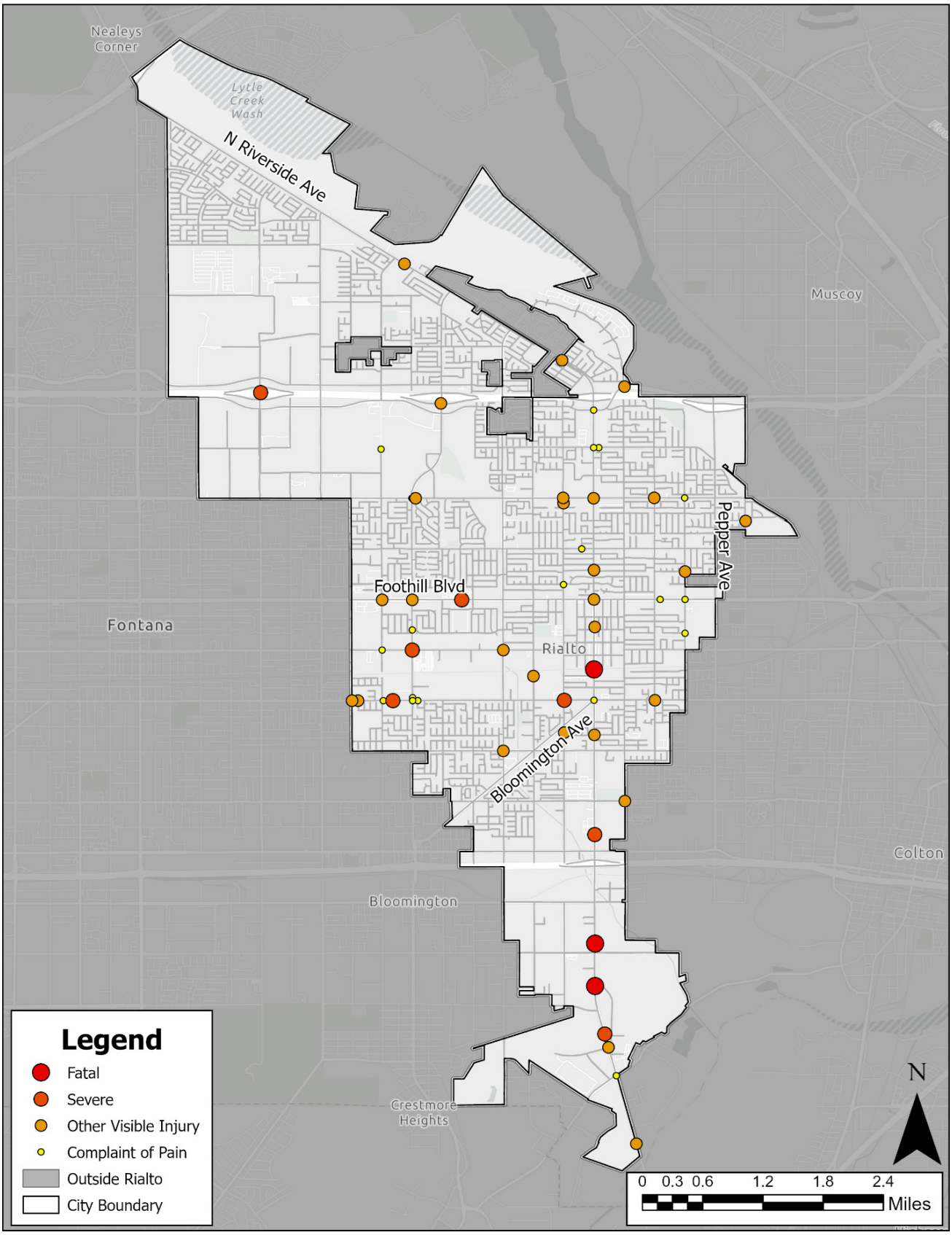


Figure 19: Bicycle Collisions by Severity (2018–2023)



7.4.1 Total Collisions by Race/Ethnicity

In disaggregating collisions by race/ethnicity, the data shows that most people involved in collisions in the City of Rialto were Hispanic (3,508) and accounted for 63% of all collisions. Collisions involving Black individuals accounted for 13% of all collisions (738). Collisions involving White individuals accounted for 10% of all collisions (573). 11% of all individuals (654) were characterized as other or were not identified by race/ethnicity. Few collisions involving Asian individuals were reported (71). **Table 9** shows the number of people involved in collisions in the City by race/ethnicity.

Table 9: Parties involved in Collisions by Race and Ethnicity

Race/Ethnicity	Number of people by Race/Ethnicity	Percentage
Asian	71	1%
Black	738	13%
Hispanic	3508	63%
White	573	10%
Other	184	3%
No Information Provided	470	8%

7.4.2 Bicycle Collisions by Race/Ethnicity

Overall, bicycle collisions in the City of Rialto are relatively high. In total, there were 68 collisions involving a bicycle between 2018 and 2023. There were 3 collisions that resulted in fatalities and 65 that resulted in injuries. Of the three bicycle collisions that resulted in fatalities, 2 involved people of color. The fatalities involved Black (1), Hispanic (1), and White (1) identifying individuals. Collisions that resulted in injuries involved Hispanic (45), Black (10), White (7), and No Information Provided (3) identifying individuals. **Table 10** shows the number of people involved in bicycle collisions in the City by race/ethnicity.

Table 10: Bicycle Collisions by Race and Ethnicity

Bicyclist Race/Ethnicity	Fatal	Injury
Asian	0	0
Black	1	10
Hispanic	1	45
White	1	7
Other	0	0
No Information Provided	0	3
Total	**3**	**65**

7.4.3 Pedestrian Collisions by Race/Ethnicity

Overall, pedestrian collisions in the City of Rialto are quite high. In total, there were 176 collisions involving 185 pedestrians between 2018 and 2023. There were 26 collisions that resulted in fatalities and 33 that resulted in severe injuries. **Table 11** shows pedestrian collisions in the City by race/ethnicity.

Table 11: Pedestrian Collisions by Race and Ethnicity

Pedestrian Race/Ethnicity	Fatal	Injury
Asian	0	1
Black	5	32
Hispanic	13	103
White	3	14
Other	5	6
No Information Provided	0	3
Total	**26**	**159**

7.5 COLLISIONS BY AGE

7.5.1 Total Collisions by Age

Of the total 2,125 collisions within the five-year period, 5,544 people were involved in the collisions. The number of people involved in each collision per age group is shown in **Table 12**. Most of the 2,125 collisions within this period involved individuals between the ages of 25 to 34 (1,397) followed by individuals aged 45 to 64 (1,273). These numbers indicate that roughly 46% of people involved in collisions were under the age of 35.

Table 12: Parties Involved in Collisions by Age

Age Range	Count	Percent
Under 15	45	0.8%
15–24	1,135	20.5%
25–34	1,397	25.2%
35–44	902	16.3%
45–64	1,273	23.0%
65+	329	5.9%
Not Provided	463	8.4%
Total	**5,544**	

7.5.2 Bicycle Collisions by Age

The number of people involved in bicycle collisions by age group and severity is shown in **Table 13**. Of the total 68 individuals involved in bicycle collisions, about 61% were under the age of 35. Three individuals were involved in bicycle collisions that resulted in fatalities, two were over the age of 45 and one was under the age of 35.

Table 13: Fatal and Injury Bicyclist-Involved Crashes by Age Range

Bicyclist Age Range	Fatal	Injury
Less than 15	0	7
15–24	0	19
25–34	1	15
35–44	0	11
45–64	1	10
65 +	1	0
Age Not Provided	0	3
Total	**3**	**65**

7.5.3 Pedestrian Collisions by Age

The number of people involved in pedestrian collisions by age group and severity is shown in **Table 14**. Of the total 185 people involved in the 176 pedestrian collisions, ninety-six individuals, or 52% of individuals, were under the age of 35. Twenty-six people were fatally injured in pedestrian collisions between the ages of 15 and under (2), 15 – 24 (2), 25 – 34 (4), 35 – 44 (5), 45 – 64 (8), and 65 + (5).

Table 14: Fatal and Injury Pedestrian-Involved Crashes by Age Range

Pedestrian Age Range	Fatal	Injury
Less than 15	2	24
15–24	2	40
25–34	4	24
35–44	5	15
45–64	8	39
65 +	5	17
Age Not Provided	0	0
Total	**26**	**159**

7.6 KEY TAKEAWAYS

The following includes key findings from the equity analysis as it relates to demographic factors:

- 28% of households in the City of Rialto earn less than $50,000 a year, with a majority (58%) of households in Rialto earning less than $100,000 a year.
- Despite making up 75% of the City's population, Hispanic/Latino residents were involved in only 63% of crashes. White, Black, and Asian residents, as well as residents of other races were slightly over-represented in crashes relative to their share of the population.
- Black residents were constituted a larger share of bicycle and pedestrian involved injuries than their share of the population. They represented 15% of bicyclist injuries and 20% of pedestrian injuries relative to a 12% share fo the City's population.
- Residents in the 25–34 age group make up 16% of the City's population, but were involved in 25% of crashes.
- Younger residents were more likely to be victims of bicycle injuries than older residents.
- Residents ages 45 and older were more likely to be killed in pedestrian-involved crashes. 50% of victims were at least 45 years of age, whereas 31% of the population of Rialto is 45 or older.
- Nearly all pedestrian-involved crashes resulting in fatal or severe injuries occurred on arterial streets, with large concentrations along Riverside Ave, Foothill Blvd, and Merrill Ave. There were also notable concentrations at SR-210 and I-10 on/off ramps.
- Fatal crashes involving bicyclists were concentrated along Riverside Ave, while serious injury collisions involving bicyclists were concentrated along Foothill Blvd, Rialto Ave, and Merrill Ave.

The equity and collision analysis helps to identify areas of the city where additional safety improvements are needed to reduce the incidence of severe or fatal collisions and reduce disproportionate impacts on vulnerable populations. The city should explore traffic calming, bicycle and pedestrian friendly infrastructure, and street improvements that prioritize safety. Directing policies and projects to equity focused areas of the city will help to improve conditions for everyone, including residents and workers traveling to and through the City of Rialto.

8. CLIMATE CHANGE, SUSTAINABLE AND ECONOMIC COMPETITIVENESS

The analysis was done using REPLICA, a tool used to access traffic data sets for specific geographic areas. The dataset available represents the population and their travel patterns in the City of Rialto.

8.1 TRIP ORIGIN: TRIP DESTINATION ANALYSIS

This report utilizes REPLICA data for Spring 2023 to determine the volumes of network links. The data is derived from REPLICA's seasonal model, which provides volume information for a typical weekday. The metrics used in analyzing the network link volumes include the choice of mode, trip distance, trip purpose, and vehicle details. The dataset focuses on trip information at the network link level. **Figure 21** displays the locations of all transportation trips for various modes on the network link. **Figure 22** through **Figure 24** depict the locations of pedestrian, bicycle, and transit trips on the network link. The volume data reveals that the top five roadway segments with the highest trip counts are I-10, CA-210, Riverside Avenue, Foothill Boulevard, and Bloomington Avenue.

8.1.1 Network Volume

Table 15 presents an overview of the proportions of primary modes of travel within the roadway network of the City of Rialto. The most common primary mode of transportation in Rialto is private auto, accounting for 57.56% of trips, followed by carpool for 27.7%, and walking for 8.8%.

8.1.2 Trip Distance

The internal distribution of trip origin and trip destination exclusively within Rialto is illustrated in **Figure 20**. The greatest proportion of trips have a distance between 8 and 16 miles, accounting for 18.5% of the total. This is followed by trips with distances between 4 and 8 miles which make up 17.4% of the total, and trips between 2 and 4 miles, which account for 16.2% of the total.

Further analysis was conducted to identify the primary modes of transportation for trips with distances under 0.5 miles and is shown in **Table 16**. The results indicate that walking is the main mode, accounting for 58.3% of these trips. These are followed by single occupancy vehicles and carpool trips.

Table 15: Mode Share for Trips of All Distances Taken Within or Through Rialto

Primary Mode	Percentage
Single Occupancy Vehicle	57.6%
Carpool	27.7%
Walking	8.8%
Commercial Vehicle (Freight)	4.4%
Biking	0.3%
Other (E-scooter, School Bus, Public Transit, Taxi/Lyft/Uber)	1.1%

Table 16: Mode Share for Trips Under Half a Mile in Rialto

Primary Mode	Percentage
Walking	58.3%
Single Occupancy Vehicle	16.5%
Carpool	11.1%
Commercial Vehicle (Freight)	6.78%
Biking	1.0%
Other (E-scooter, School Bus, Public Transit, Taxi/Lyft/Uber)	6.3%

Figure 20: Trip Distance Distribution in Rialto

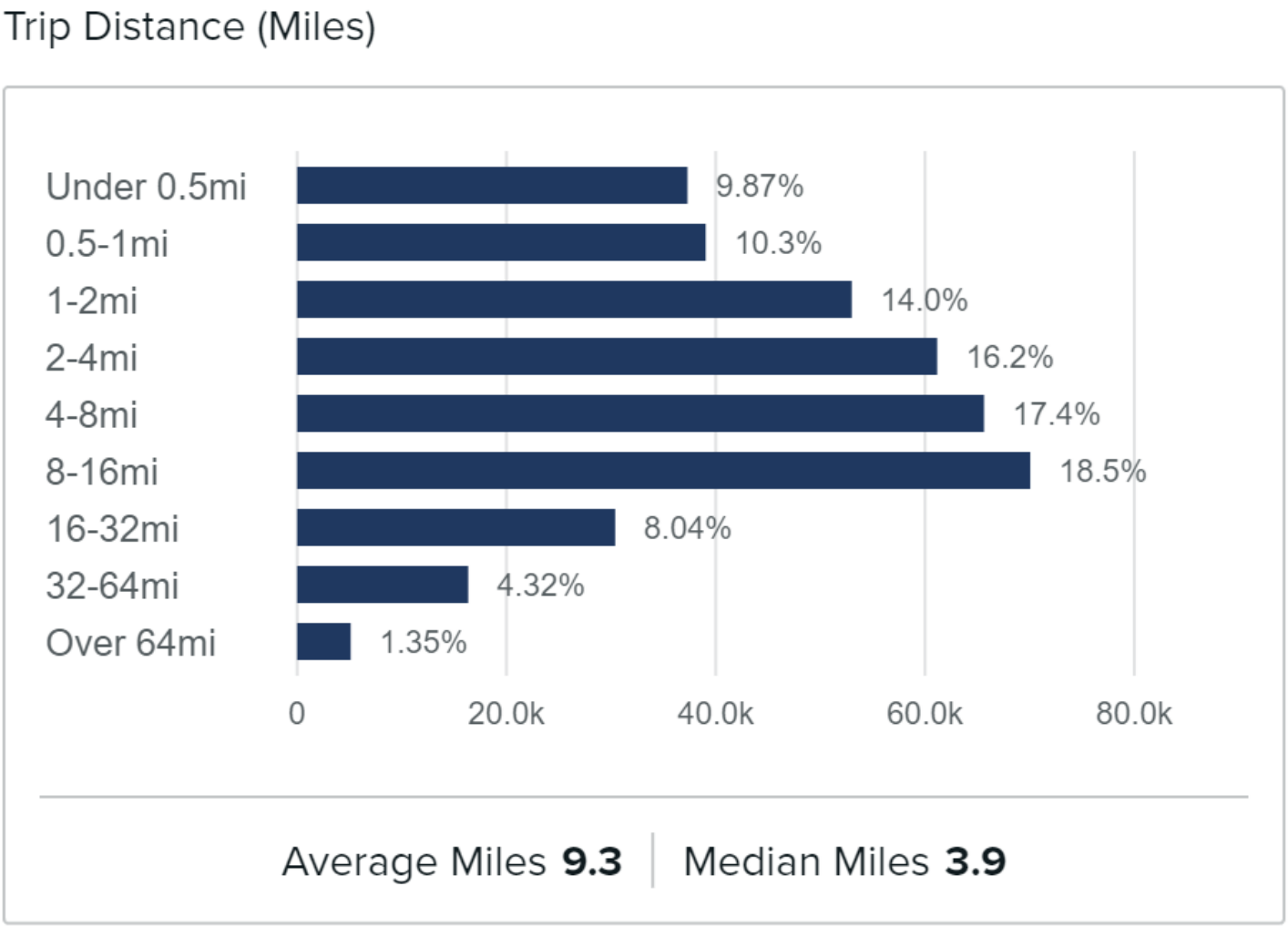


Table 17: Trip Destination from Rialto by City

Destination	Trips	Percent
Rialto	158,653	43.51%
Fontana	52,414	14.37%
San Bernardino	45,126	12.37%
Colton	12,468	3.42%
Rancho Cucamonga	11,030	3.02%
Riverside	9,979	2.74%
Bloomington	9,477	2.60%
Ontario	8,048	2.21%
Jurupa Valley	5,425	1.49%
Redlands	3,896	1.07%

Table 18: Top External Trip Destinations by Census Tract

Destination by Tracts	Number of Trips
35.03 (San Bernardino, CA)	14,645
36.09 (San Bernardino, CA)	13,798
35.05 (San Bernardino, CA)	11,131
35.10 (San Bernardino, CA)	10,642
38.01 (San Bernardino, CA)	9,065

8.2 TRIP ORIGIN AND DESTINATION ANALYSIS

8.2.1 Trip by Origin

The number of trips originating in the City of Rialto is reported to be 379k, made by 177k trip takers. The term "trip by origin" refers to the number of trips that start within the boundaries of Rialto. This data provides an overview of the of the total number of person-trips taken in Rialto, including both residents who made trips and those who did not.

8.2.2 Origin Destination Pairs

Table 17 presents a summary of the percentage of destination trips by city for trips originating in Rialto. The table highlights the top destinations for trips originating in Rialto. The city with the highest number of trips is Rialto itself, accounting for 44% of trips. This is followed by Fontana, which accounts for 14%, and San Bernardino, which accounts for 12%. Other popular destinations for trips leaving Rialto include Colton and Rancho Cucamonga.

8.2.3 Active Transportation

This analysis utilized Replica data to filter the primary modes of walking, biking, and transit in the City of Rialto. The top roadway segments for biking volume were identified as Merrill Avenue, Baseline Road, and Pepper Avenue. Similarly, the top roadway segments for walking volume were Maple Avenue, Willow Avenue, Persimmon Street, and Meridian Avenue. This information highlights the importance of having adequate pedestrian and bicycle infrastructure in areas with high concentrations of vulnerable users. Comparing the data on vulnerable user collisions with the volumes of vulnerable user activity, it was observed that most collisions occurred on the roadway segments with the highest vulnerable user activity. This emphasizes the need for improved safety measures for pedestrians and cyclists in these areas. The analysis also revealed that the primary mode of transportation in the City of Rialto is driving, with many people using this mode for short to medium distance trips. While the majority of trips under 0.5 miles were walking trips, it is important to consider further distances in order to explore alternative modes of travel, such as walking, biking, and transit. By enhancing connectivity throughout the city, it is possible to reduce the reliance on short car trips and promote other modes of transportation. **Figure 21**–**Figure 24** provide insights into the volume of trips across all modes of transportation, as well as specific modes. Improving roadway safety for non-automobile modes of travel can have several benefits, including reducing Vehicle Miles Traveled (VMT), greenhouse gas emissions, and pollutants. Improving the pedestrian environment enhances the overall quality of life for residents and improves the efficiency of the transportation network. By reducing reliance on private cars and promoting walking, biking, and public transportation, Rialto can decrease the emission of carbon dioxide and other pollutants, contributing to efforts to combat climate change and improve air quality. Additionally, promoting active transportation can help reduce traffic congestion, leading to smoother traffic flow and fewer idling vehicles. This not only benefits businesses by providing faster and more reliable commuting options, but also attracts new businesses and investments. Increase foot traffic and cycling can contribute to a vibrant local economy and foster a sense of community. Safer roads and alternative modes of transportation also contribute to the economic competitiveness of a city by reducing accident-related costs, improving transportation efficiency, and promoting environmental and public health. Therefore, increasing active transportation can enhance Rialto through improved connectivity to restaurants and shops, better public health outcomes, and enhanced environmental sustainability.

Figure 21: Daily Roadway Volumes for All Modes by Segment in Rialto

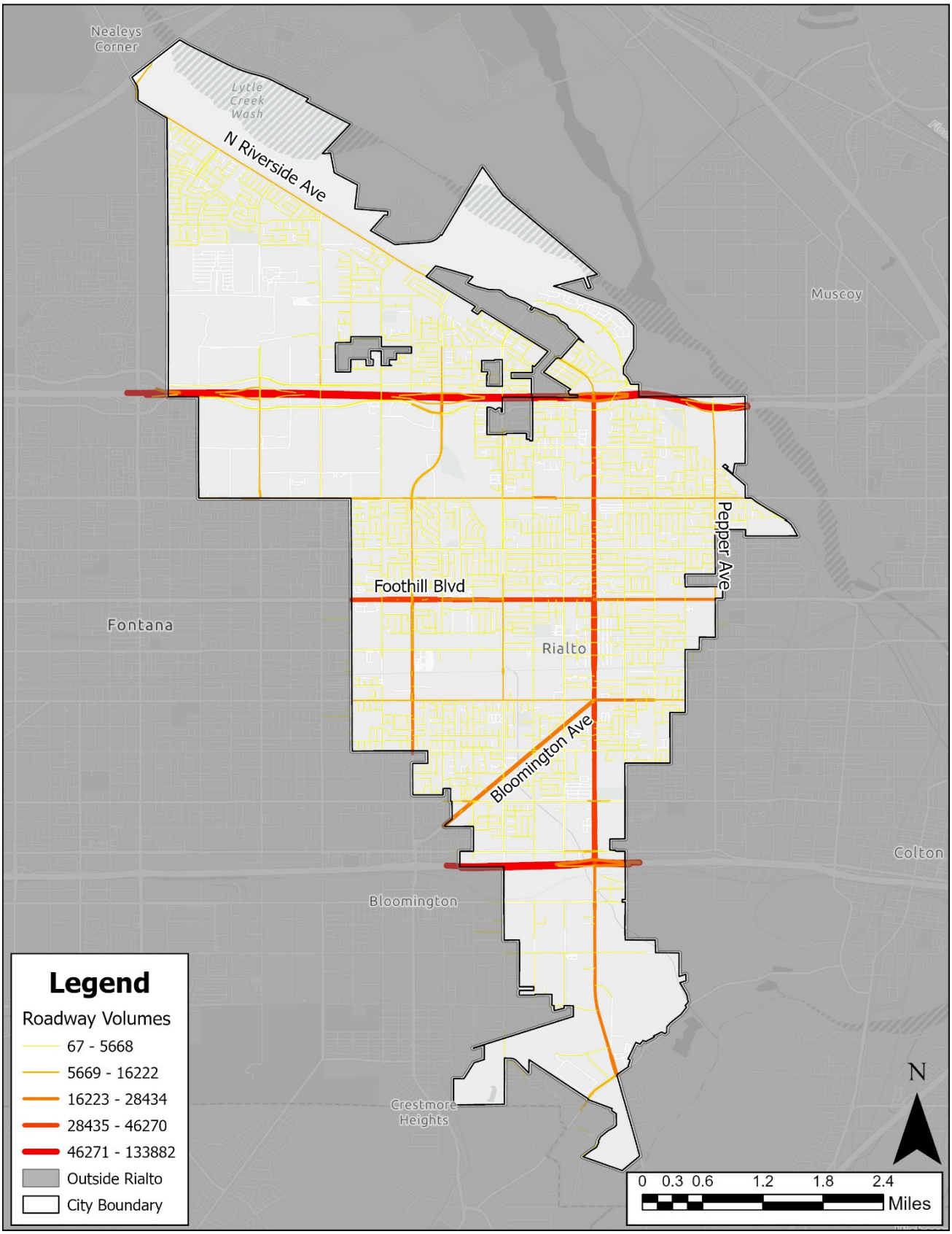


Figure 22: Daily Bicycle Volumes by Roadway Segment in Rialto

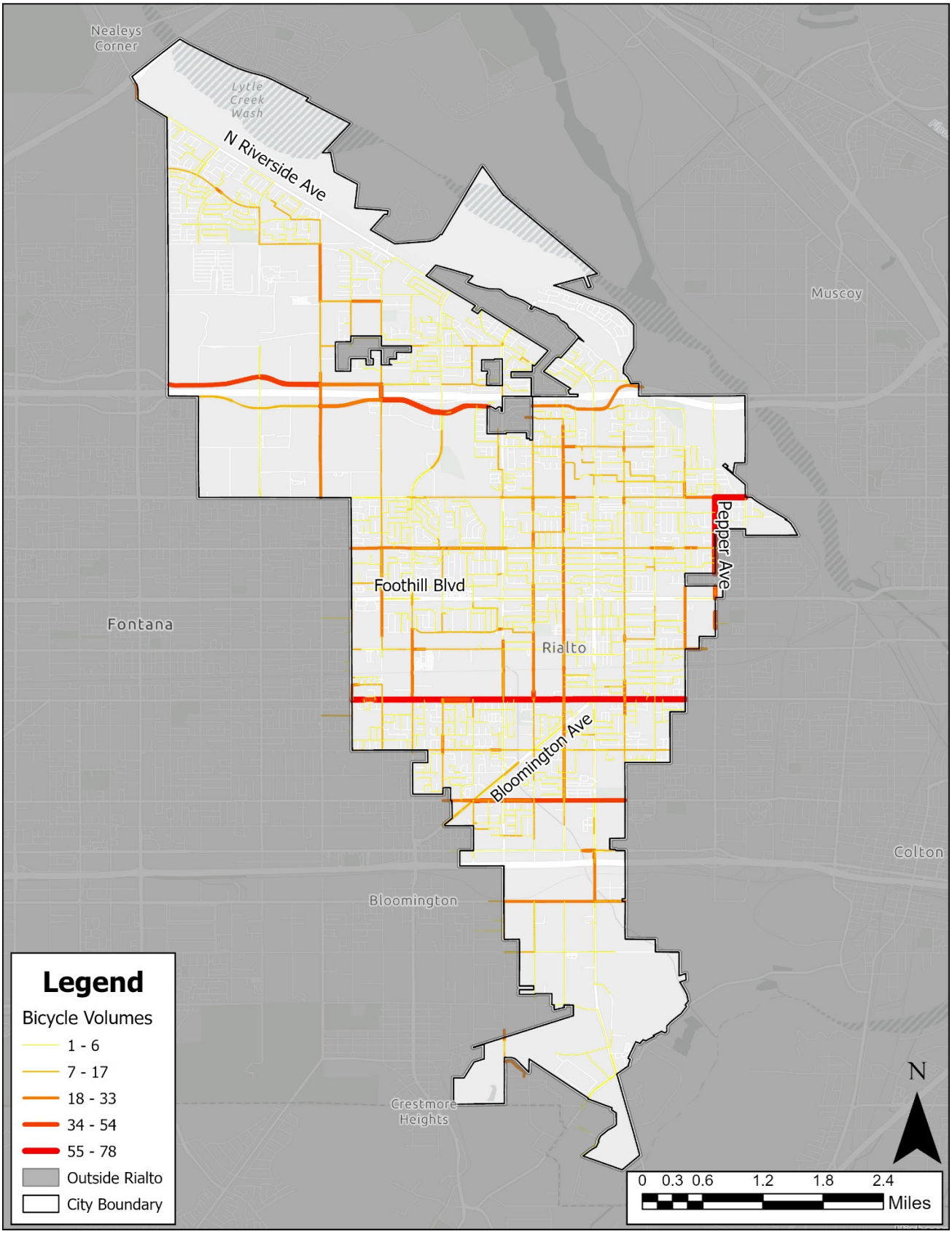


Figure 23: Daily Pedestrian Volumes by Road Segment in Rialto

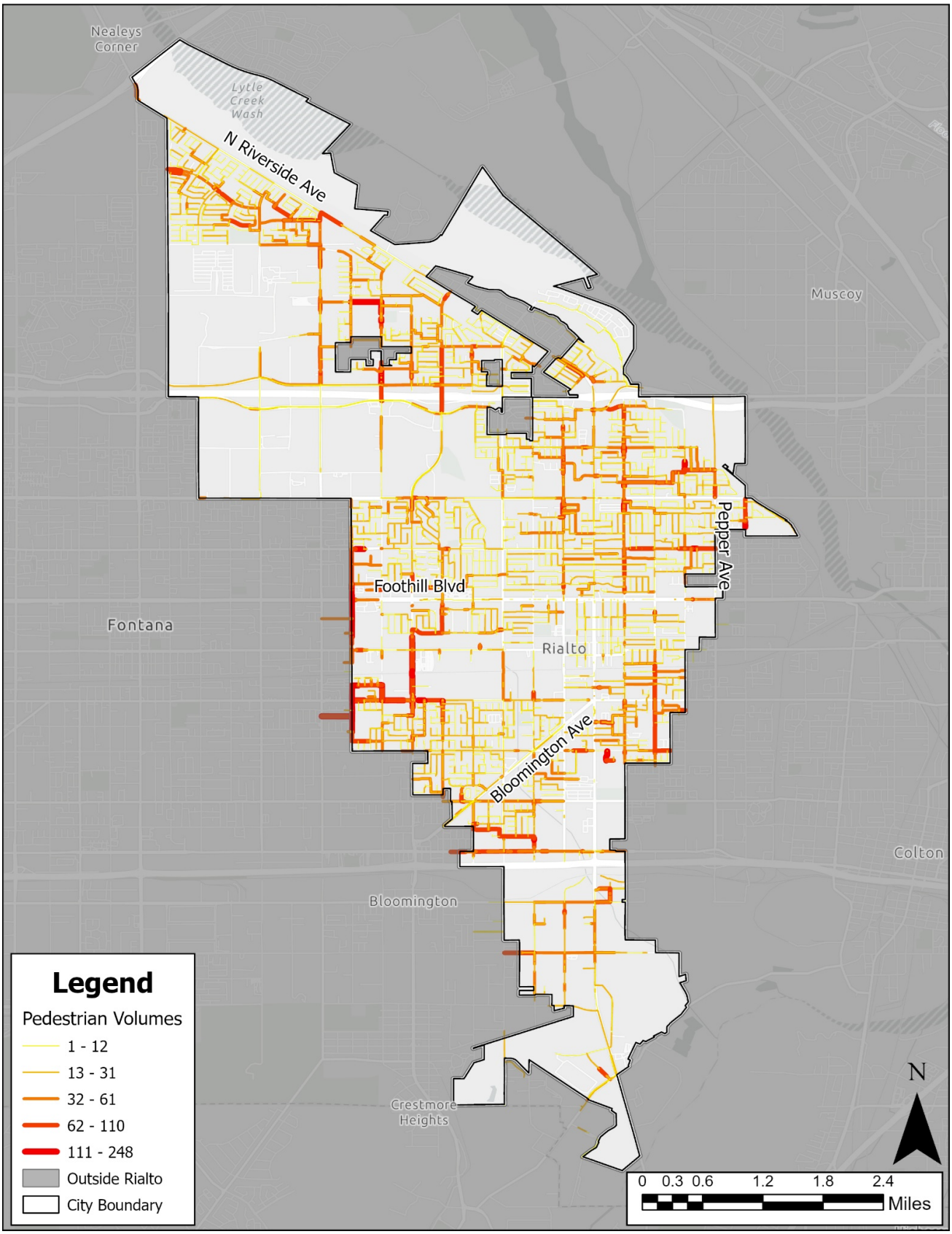
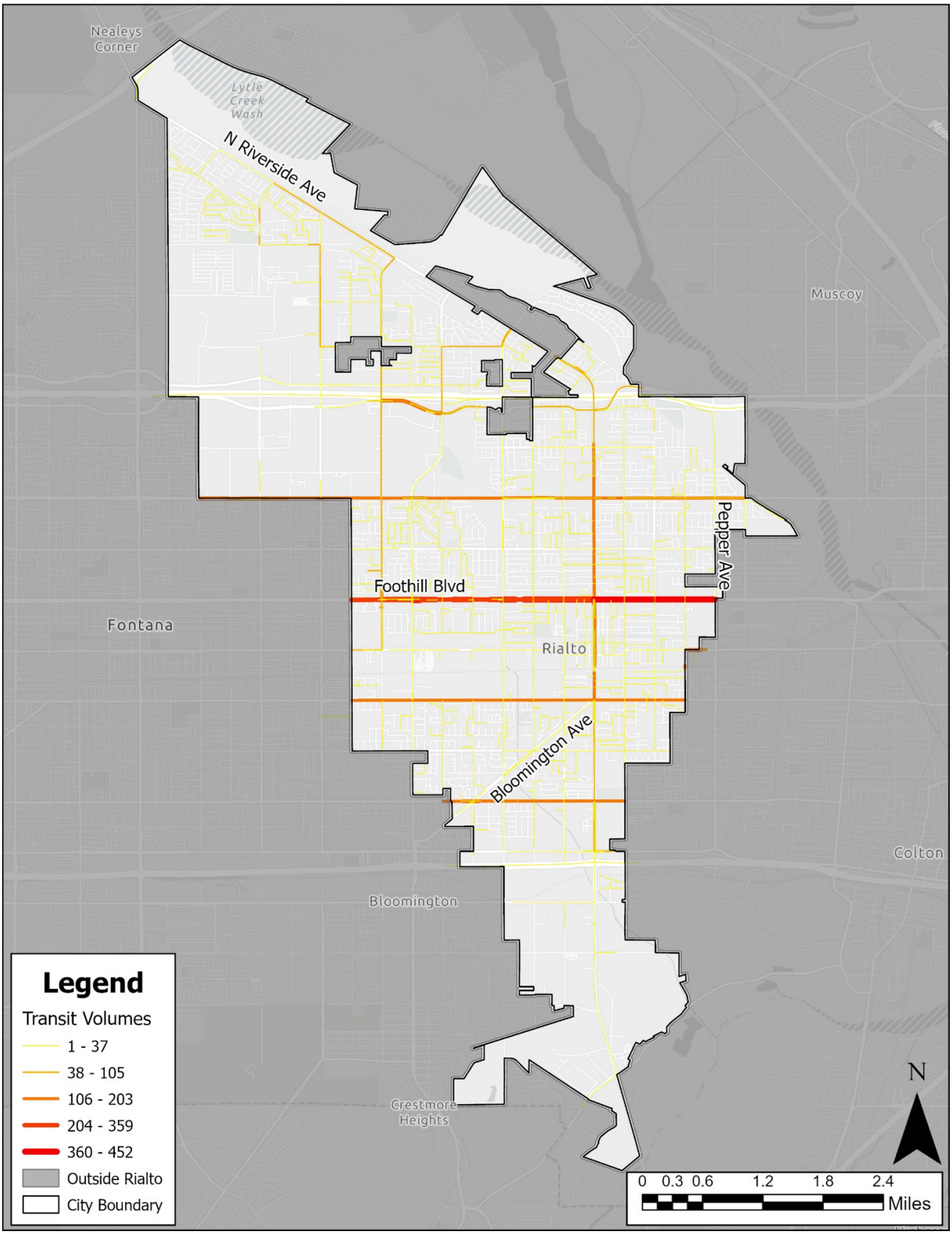


Figure 24: Daily Transit Trips by Roadway Segment in Rialto



9. POLICY AND PROCESS CHANGE

9.1 LITERATURE REVIEW

Existing plans, policies, and projects that were recently completed, planned, or on-going were compiled at the start of the SAP process to gain perspective on the existing efforts for transportation-related improvements within the City. High-level key points regarding transportation improvements and safety-related topics were identified to inform decision making in the SAP. **Table 19** outlines the relevant existing City plans and their goals, while **Table 20** and **Table 21** outline current and proposed active transportation and roadway projects. The implementation timelines for these improvements are as follows:

- **Near-term:** within 2 years
- **Mid-term:** 2 to 5 years
- **Long-term:** beyond 5 years

Table 19: Summary of Existing Transportation Plans and Initiatives in Rialto

Document Name	Transportation Policies/Improvements
Rialto General Plan (2010)	• The General Plan is a planning document which serves as a guide to the community's vision until 2040. The General Plan was updated in 2023. • The Circulation Element in the General Plan was updated in 2023. The Circulation Element focuses on riding rail and bus transit, accommodating bicyclists and pedestrians, and moving goods. There are planned routes for trucks and bicyclists, and goals and policies to increase safety throughout the roadway network.
Rialto Systemic Safety Analysis Report Program (SSARP)	• The Rialto SSARP evaluates the findings of a Citywide collision assessment and recommends safety improvements throughout the City to lower collision rates. Four years of collision data was analyzed, and certain locations with higher collision rates or risk factors were further evaluated in the field. • The SSARP provides a list of several potential safety improvement projects that could be prioritized for grant funding in the future. The list includes seven high-risk corridors and twelve high-risk intersections. Countermeasures were selected including traffic control modifications at intersections and safety improvements along corridors.
Rialto Safe Routes to School (SRTS)	• The program promotes walking and biking to school for students and their parents in the City of Rialto. These alternative modes of transportation are encouraged to improve health and well-being when implemented in a safe manner. • The program also focuses on implementing engineering recommendations to increase safety along corridors for pedestrians and bicyclists. The SRTS program prioritizes segments to improve as funding becomes available. recommends safety improvements and polices including enhanced crosswalks, • Several factors impact which recommendations are proposed and prioritized by location including pedestrian and bicyclist crash data, median household income, student body population density, number of students enrolled, and speed limit analysis.

Document Name	Transportation Policies/Improvements
Rialto Active Transportation Plan (ATP)	• The City of Rialto's ATP strives to implement more safety, connectivity, livability, accessibility to transit, coordination and collaboration with local agency plans and their implementations, and increased focus on disadvantaged communities. • This plan outlines several walking and bicycling benefits including environmental benefits, health benefits, and economic benefits. Community engagement is key to find strategies to prioritize specific projects. • The plan also provides recommendations including bicycle and pedestrian treatments, recommended bikeway projects, safe routes to parks recommendations, and first and last mile to transit recommendations.
Rialto Climate Adaptation Plan (2021)	• The Climate Adaptation Plan outlines how to prepare the City of Rialto and its residents for climate change. The plan proposes goals, policies, and actions centered around air pollution, extreme, het, wildfire, and flooding. • Goal 1 in the plan is to design streets that are safe and comfortable to walk and bike through. Policy 1.1 in the plan prioritizes Safe Routes to School in locations impacted by extreme heat and air pollution.
2022 San Bernardino County Local Roadway Safety Plan (LRSP)	• The San Bernardino County LRSP determines and analyzes collision hot spots throughout the roadway network of the unincorporated areas. The LRSP recommends countermeasures to help reduce collisions and improve safety overall. • The plan implements the Safe System approach with a goal to eliminate all fatalities and serious injuries for each type of road user. The Safe System approach focuses on providing a safe transportation system with five main elements: safe road users, safe vehicles, safe speeds, safe roads, and post-crash care. • The plan helps with funding for safety projects from the Highway Safety Improvement Program (HSIP) and other funding mechanisms.
2015 San Bernardino Associated Governments Complete Streets Strategy	• The San Bernardino County Transportation Authority (SBCTA; formerly San Bernardino Associated Governments – SANBAG) Complete Streets Strategy focuses on helping local jurisdictions create policies and projects for Complete Streets. • Complete Streets policies mandate the implementation of planning, designing, and maintaining streets that are safe for all road users. • The strategy specifically investigates Complete Streets in General Plans and the integration of Complete Streets with other planning efforts.
2017 SBCTA Regional Safe Routes to School Plan Phase II	• The plan is intended to increase the safety and accessibility of walking and biking to school. • Several pedestrian and bicycle improvements are recommended in the plan to help local agencies implement this program in their communities. • Phase I of the plan was developed in 2015. Phase II has two volumes with the first one describing the processes of developing the engineering recommendations and the second one detailing the engineering recommendations to improve safety for pedestrians and bicyclists traveling to school.

Document Name	Transportation Policies/Improvements
2022 Caltrans District 8 Active Transportation Plan	• The ATP identifies specific locations where bicycle and pedestrian improvements are needed throughout the State Highway System in the district. • The plan prioritizes certain highway segments and crossings to improve active transportation with future funding. The next steps for implementation of these bicycle and pedestrian facilities are also included in the plan. • Caltrans and other agencies will use the plan for future planning, construction, and maintenance projects to address active transportation needs.
2020 SCAG Connect SoCal Transportation Safety and Security Technical Report for San Bernardino County	• This technical report by the Southern California Association of Governments (SCAG) describes current transportation safety conditions and lists strategies to improve transportation safety in Southern California. • The report acts as guide for local and county agencies to implement safety into the regional transportation system. • The goals of Connect SoCal are to create safer, healthier, and more sustainable communities. The plan aims to meet these goals by creating strategies and policies to improve safety for all road users, investing in infrastructure preservation, implementing safety strategies to support healthy and equitable communities, and increasing access to different modes of transportation.
2018 San Bernardino County Non-Motorized Transportation Plan	• The goals of the plan are to increase access and travel for pedestrians and bicyclists, accommodate pedestrians and bicyclists in transportation and land use planning, and improve safety for pedestrians and bicyclists. • The plan investigates pedestrian and bicycle planning, local jurisdiction bicycle plans, design guidelines, and plan implementation. The plan also includes crash data, mileage statistics, and existing and proposed bikeway facilities
2020 SBCTA Comprehensive Pedestrian Sidewalk Inventory Plan	• The plan developed a sidewalk inventory to assist in planning improvements for sidewalk connectivity. Projects were identified and prioritized based on pedestrian and bicycle crash data and other factors. • The plan also strives to reduce redundant pedestrian infrastructure data collection efforts by regional and local agencies, as well as create consistent data for agencies to use for planning pedestrian projects. • Phase II (2023) of the plan further refines the sidewalk inventory and helps support each agency's compliance with the Americans with Disabilities Act (ADA) to design safe and accessible pedestrian facilities.
2023 Foothill Central Specific Plan	• The Foothill Central Specific Plan outlines the development of Foothill Boulevard and the City of Rialto's Downtown Area. The Specific Plan supports the elements provided in the City of Rialto General Plan. • The plan supports other planning initiatives to increase safety including the Active Transportation Plan and Rialto Climate Plan. Funding mechanisms are also identified for the planning area. • The Specific Plan recognizes the safety concerns of residents in the Plan Area due to the lack of reliable transit and inadequate pedestrian and bicycle facilities.

Table 20: Current and Future Active Transportation Projects in Rialto

Project Name	Plan	Location	Project Description	Status	Timeline & Next Steps for Implementation
Pacific Electric (PE) Trail Expansion	Feasibility Study: City of Rialto, Public Works Department (2022)	Spans 21 miles east-west	• Multi-use pedestrian and bicycle trail.	In design	Mid-term: Construction
Cactus Trail Improvements Project	City of Rialto Recirculated Mitigated Negative Declaration (MND)	West side of Cactus Avenue (Rialto Avenue - Base Line Road)	• Bicycle and pedestrian trail improvements.	Completed	N/A
Rialto SRTS Segment ID #1	Rialto Safe Routes to School (SRTS)	West Terra Vista Drive (Sierra Avenue – Alder Avenue)	• School signage, RRFB's, Class II Bike Lane extension, crosswalk alterations/ additions, ADA curb ramp additions, pavement marking refurbish, and speed feedback units.	In construction	Near-term: Complete Construction
Rialto SRTS Segment ID #17	Rialto Safe Routes to School (SRTS)	N. Eucalyptus Avenue (E. Walnut Avenue - E. Margarita Road)	• Sidewalk additions, ADA curb ramps, school signage, crosswalk alterations/ additions, and school pavement marking alterations.	In design	Near-term: Begin Construction
Rialto SRTS Segment ID #21	Rialto Safe Routes to School (SRTS)	N. Eucalyptus Avenue (E. Holly Street - E. Victoria Street)	• Sidewalk additions, ADA curb ramps, and bulb outs.	In design	Near-term: Begin Construction
Rialto SRTS Segment ID #31	Rialto Safe Routes to School (SRTS)	Meridian Avenue (Mill Street - Birch Street)	• Bulb out installation, crosswalk alterations/ additions, sidewalk additions, speed feedback unit, school signage, and pedestrian push button modification.	Not completed	Mid-term: Apply for future CA ATP and HSIP grants and federal grant opportunities.

Project Name	Plan	Location	Project Description	Status	Timeline & Next Steps for Implementation
Rialto SRTS Segment ID #33	Rialto Safe Routes to School (SRTS)	S. Lilac Avenue W. (Randall Avenue - W. San Bernardino Avenue)	• School signage, pedestrian signal flasher additions, RRFB's, ADA curb ramps, sidewalk additions, and signalized intersection installation.	Not completed	Mid-term: Apply for future CA ATP and HSIP grants and federal grant opportunities.
Rialto SRTS Segment ID #34	Rialto Safe Routes to School (SRTS)	S. Meridian Avenue (Los Robles Avenue – Visconti Drive)	• School signage, crosswalk alterations/ additions, RRFB's, striping modifications, bulb out installation, school pavement refurbishment, speed feedback unit, and sidewalk additions.	Not completed	Mid-term: Apply for future CA ATP and HSIP grants and federal grant opportunities.
Rialto SRTS Segment ID #7	Rialto Safe Routes to School (SRTS)	Maple Avenue (Summit Avenue – Bohnert Avenue)	• ADA curb ramp, school signage, sidewalk additions, school pavement markings, and crosswalk additions/ alterations.	Not completed	Mid-term: Apply for future CA ATP and HSIP grants and federal grant opportunities.
Rialto SRTS Segment ID #20	Rialto Safe Routes to School (SRTS)	N. Acacia Avenue (E. Madrona Street - E. Victoria Street)	• Bulb outs, ADA curb ramps, and crosswalk alterations/ additions.	Not completed	Mid-term: Apply for future CA ATP and HSIP grants and federal grant opportunities.
Rialto SRTS Segment ID #22	Rialto Safe Routes to School (SRTS)	N. Meridian Avenue (E. Etiwanda Avenue - E. Jackson Street)	• ADA curb ramps, crosswalk alterations/ additions, and sidewalk additions.	Partially completed	Near-Term: implement remaining components

Project Name	Plan	Location	Project Description	Status	Timeline & Next Steps for Implementation
Rialto SRTS Segment ID #9	Rialto Safe Routes to School (SRTS)	N. Apple Avenue (Ayala Drive - W. Willow Avenue)	• School crosswalk alteration/additions, red paint, centerline additions, bulb out install, school signage, RRFB's, and ADA curb ramps.	Partially completed	Near-Term: implement remaining components
Rialto SRTS Segment ID #28	Rialto Safe Routes to School (SRTS)	N. Eucalyptus Avenue (E. 3rd Street - Golden Spike Drive)	• Crosswalk alterations/ additions, school signage, red paint, sidewalk additions, ADA curb ramps, traffic signal modifications, school pavement markings, speed feedback units, bulb out installation, shoulder stripe additions, and mast arm refurbishment.	Not completed	Mid-term: Apply for future CA ATP and HSIP grants and federal grant opportunities.
Rialto SRTS Segment ID #32	Rialto Safe Routes to School (SRTS)	Randall Avenue (S. Cactus Avenue -Lawrence Garrett Street)	• Sidewalk additions, ADA curb ramps, school signage, traffic signal modification plan, bulb out installation, crosswalk alterations/ additions, school pavement marking refurbishment, Class II Bike Lane modifications, RRFB's, and STOP bar refurbishment.	Partially completed	Near-Term: implement remaining components
Rialto SRTS Segment ID #2	Rialto Safe Routes to School (SRTS)	Mango Avenue & Segovia Lane (Sierra Avenue - W. Terra Vista Drive)	• School signage, red paint, RRFB's, crosswalk additions, and bulb outs.	Not completed	Mid-term: Apply for future CA ATP and HSIP grants and federal grant opportunities.

Project Name	Plan	Location	Project Description	Status	Timeline & Next Steps for Implementation
Rialto SRTS Segment ID #11	Rialto Safe Routes to School (SRTS)	Willow Avenue (Easton Street - E. Base Line Road)	• School signage, crosswalk additions/ alterations, RRFB's, and ADA curb ramps.	Not completed	Mid-term: Apply for future CA ATP and HSIP grants and federal grant opportunities.
Rialto SRTS Segment ID #19	Rialto Safe Routes to School (SRTS)	Etiwanda Avenue (Sycamore Avenue – Meridian Avenue)	• Bulb out curbs, signalized intersection, sidewalk additions, RRFB's, school signage, crosswalk alterations/ additions, and in ground pavement flashers.	Not completed	Mid-term: Apply for future CA ATP and HSIP grants and federal grant opportunities.
Rialto SRTS Segment ID #24	Rialto Safe Routes to School (SRTS)	W. Rialto Avenue (Maple Avenue – Cactus Avenue)	• ADA curb ramps, school signage, speed feedback, crosswalk alteration/ additions,sidewalk additions, traffic signal modifications, and Class II bike lane modifications.	Not completed	Mid-term: Apply for future CA ATP and HSIP grants and federal grant opportunities.
Rialto SRTS Segment ID #26	Rialto Safe Routes to School (SRTS)	S. Lilac Avenue (W. Carter Street - W. Rialto Avenue)	• School signage, speed feedback units, railroad crossing accessibility modifications, and crosswalk additions/ alterations.	Not completed	Mid-term: Apply for future CA ATP and HSIP grants and federal grant opportunities.
Rialto SRTS Segment ID #30	Rialto Safe Routes to School (SRTS)	S. Pepper Avenue (Poplar Street - Park Vista Drive)	• RRFB's, ADA curb ramps, school signage, crosswalk alterations/ additions, traffic signal modification for pedestrian clearance time, and sidewalk additions.	Not completed	Mid-term: Apply for future CA ATP and HSIP grants and federal grant opportunities.

Project Name	Plan	Location	Project Description	Status	Timeline & Next Steps for Implementation
Rialto SRTS Segment ID #5	Rialto Safe Routes to School (SRTS)	Riverside Avenue (Peach Street – Cactus Avenue)	• School signage, speed feedback units, ADA curb ramps, median relocation, and crosswalk alteration/ additions.	Not completed	Mid-term: Apply for future CA ATP and HSIP grants and federal grant opportunities.
Rialto SRTS Segment ID #6	Rialto Safe Routes to School (SRTS)	Linden Avenue (N. Ironwood Avenue - W. Norwood Street)	• Road diet, crosswalk additions/ alterations, ADA curb ramps, and sidewalk additions.	Partially Completed (crosswalks and new striping at Linden/ Bohnert by Carter High School)	Near-term: implement remaining components
Rialto SRTS Segment ID #8	Rialto Safe Routes to School (SRTS)	Summit Avenue (Maple Avenue - N. Apple Avenue)	• Sidewalk additions and ADA curb ramps.	Not completed	Mid-term: Apply for future CA ATP and HSIP grants and federal grant opportunities.
Rialto SRTS Segment ID #10	Rialto Safe Routes to School (SRTS)	Pecan Avenue (N. Riverside Avenue -Apple Avenue)	• Sidewalk additions and ADA curb ramps.	Not completed	Mid-term: Apply for future CA ATP and HSIP grants and federal grant opportunities.
Rialto SRTS Segment ID #13	Rialto Safe Routes to School (SRTS)	W. Etiwanda Avenue (Cedar Avenue – Willow Avenue)	• School signage, ADA curb ramps, crosswalk alterations/ additions, school pavement markings, RRFB's, and Class II bike facility additions.	Not completed	Mid-term: Apply for future CA ATP and HSIP grants and federal grant opportunities.
Rialto SRTS Segment ID #14	Rialto Safe Routes to School (SRTS)	E. Walnut Avenue (Sycamore Avenue – Chestnut Avenue)	• School signage, crosswalk additions/ alterations, ADA curb ramps, and sidewalk.	In design	Near-term: Begin Construction

Project Name	Plan	Location	Project Description	Status	Timeline & Next Steps for Implementation
Rialto SRTS Segment ID #15	Rialto Safe Routes to School (SRTS)	N. Sycamore Avenue (Walnut Avenue – Victoria Street)	• ADA curb ramps, crosswalk alterations/ additions, sidewalk additions, and speed feedback units.	In design	Near-term: Begin Construction
Rialto SRTS Segment ID #25	Rialto Safe Routes to School (SRTS)	E. Merrill Avenue/W. Mill Street (S. Althea Avenue - S. Eagle View)	• School signage, crosswalk alterations/ additions, speed feedback units, signal modification plans and pedestrian push button updates, bulb out installation, ADA curb ramps, and sidewalk additions.	Awarded – To start construction	Near-term: Begin construction
Rialto SRTS Segment ID #27	Rialto Safe Routes to School (SRTS)	N. Sycamore Avenue (E. Wilson Avenue - E. Carter Street)	• ADA curb ramps, school signage, bulb out installation, pedestrian clearance time modification, and sidewalk installation.	Not completed	Near-term: Begin Construction
Rialto SRTS Segment ID #3	Rialto Safe Routes to School (SRTS)	Alder Avenue (Summerset Drive - Sunrise Drive)	• School signage, speed feedback, RRFB's, and crosswalk additions/ alterations.	Completed	N/A
Rialto SRTS Segment ID #12	Rialto Safe Routes to School (SRTS)	Lilac Avenue (Heather Street – Van Koevering Street)	• School signage, speed feedback units, ADA curb ramps, crosswalk addition/alterations, and sidewalk addition.	Completed	N/A
Rialto SRTS Segment ID #16	Rialto Safe Routes to School (SRTS)	N. Acacia Avenue (E. Heather Street - E. Home Street)	• RRFB's, crosswalk alterations/ additions, ADA curb ramps, and school signage	Completed	N/A

Project Name	Plan	Location	Project Description	Status	Timeline & Next Steps for Implementation
Rialto SRTS Segment ID #4	Rialto Safe Routes to School (SRTS)	Buena Vista Drive (Alder Avenue – Carnation Drive)	• School signage, ADA curb ramps, red paint, and crosswalk alterations/ additions.	Partially completed	Near-term: implement remaining components
Rialto SRTS Segment ID #18	Rialto Safe Routes to School (SRTS)	N. Terrace Road (N. Eucalyptus Avenue - N. Pepper Avenue)	• ADA curb ramps, pedestrian hybrid beacon, school signage, and crosswalk additions/ alterations.	Completed	N/A
Rialto SRTS Segment ID #23	Rialto Safe Routes to School (SRTS)	Shamrock Drive (N. Meridian Avenue - Terrace Road)	• Sidewalk additions and ADA curb ramps.	Not completed	Mid-term: Apply for future CA ATP and HSIP grants and federal grant opportunities.
Rialto ATP Segment ID #1	Rialto ATP	Riverside Avenue (Foothill Boulevard - Agua Mansa Road)	• Class II/III bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #2	Rialto ATP	Riverside Avenue (Walnut Avenue - Etiwanda Avenue)	• Class II bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #3	Rialto ATP	Willow Avenue (Easton Street - Valley Boulevard)	• Class III bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #4	Rialto ATP	Lilac Avenue (Apple Street - Valley Boulevard)	• Class III bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #5	Rialto ATP	Pepper Avenue (Foothill Freeway – Baseline Road)	• Class II bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #6	Rialto ATP	Foothill Boulevard (Maple Avenue – Pepper Avenue)	• Class II bikeway	Not completed	Near-term (candidate for grant funding)

Project Name	Plan	Location	Project Description	Status	Timeline & Next Steps for Implementation
Rialto ATP Segment ID #7	Rialto ATP	Sycamore Avenue (Easton Street - San Bernardino Avenue)	• Class III bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #8	Rialto ATP	Bloomington Avenue (Cedar Avenue – Riverside Avenue)	• Class IV bikeway	Not completed	Mid-term: Apply for future CA ATP and HSIP grants and federal grant opportunities.
Rialto ATP Segment ID #9	Rialto ATP	Eucalyptus Avenue (Easton Street - Carter Street)	• Class III bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #10	Rialto ATP	PE ROW (Cactus Avenue - Pepper Avenue)	• Class I bikeway	Not completed	Mid-term: Apply for future CA ATP and HSIP grants and federal grant opportunities.
Rialto ATP Segment ID #11	Rialto ATP	Cactus Avenue (Ayala Drive – Agua Mansa Road)	• Class I bikeway	Not completed	Mid-term: Apply for future CA ATP and HSIP grants and federal grant opportunities.
Rialto ATP Segment ID #12	Rialto ATP	Walnut Avenue (Cactus Avenue – Eucalyptus Avenue)	• Class III bikeway	Not completed	Mid-term: Apply for future CA ATP and HSIP grants and federal grant opportunities.
Rialto ATP Segment ID #13	Rialto ATP	Linden Avenue (Riverside Avenue - Randall Avenue)	• Class III bikeway	Not completed	Mid-term: Apply for future CA ATP and HSIP grants and federal grant opportunities.

Project Name	Plan	Location	Project Description	Status	Timeline & Next Steps for Implementation
Rialto ATP Segment ID #14	Rialto ATP	San Bernardino Avenue (Larch Avenue - Sycamore Avenue)	• Class II bikeway	Not completed	Mid-term: Apply for future CA ATP and HSIP grants and federal grant opportunities.
Rialto ATP Segment ID #15	Rialto ATP	Easton Street/ Renaissance Parkway (Palmetto Avenue - Eucalyptus Avenue)	• Class II/III bikeway	Partially Completed	Near-term: implement remaining components
Rialto ATP Segment ID #16	Rialto ATP	Randall Avenue (Maple Avenue - City Limits)	• Class II bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #17	Rialto ATP	Locust Avenue (Casa Grande Avenue – Baseline Road)	• Class II bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #18	Rialto ATP	Valley Boulevard (City Limits - City Limits)	• Class II bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #19	Rialto ATP	Slover Boulevard (Cactus Avenue - City Limits)	• Class II bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #20	Rialto ATP	Casmalia Street/ Sierra Lakes Parkway (City Limits - Riverside Avenue)	• Class II bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #21	Rialto ATP	Cactus Avenue (Baseline Road - PE ROW)	• Class II bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #22	Rialto ATP	E. Rialto Avenue (Riverside Avenue - Eucalyptus Avenue)	• Class II bikeway	Not completed	Near-term (candidate for grant funding)

Project Name	Plan	Location	Project Description	Status	Timeline & Next Steps for Implementation
Rialto ATP Segment ID #23	Rialto ATP	Rialto Avenue (Maple Avenue - Cactus Avenue)	• Class II bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #24	Rialto ATP	Santa Ana Avenue (City Limits - City Limits)	• Class II bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #25	Rialto ATP	Terra Vista Drive (Dove Tree Avenue – City Limits)	• Class II bikeway	Completed	N/A
Rialto ATP Segment ID #26	Rialto ATP	Acacia Avenue (E. Easton Street - E. Montrose Street)	• Class III bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #27	Rialto ATP	Palm Avenue (Foothill Boulevard - Rialto Metrolink Station)	• Class III bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #28	Rialto ATP	McKinley Street and 3rd Street (Riverside Avenue – Eucalyptus Avenue)	• Class III bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #29	Rialto ATP	Cornell Street (Eucalyptus Avenue – Cactus Avenue)	• Class III bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #30	Rialto ATP	PE Trail Access (PE ROW via Spruce Avenue - Etiwanda Avenue)	• Class III bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #31	Rialto ATP	South Street (Eucalyptus Avenue – Willow Avenue)	• Class III bikeway	Not completed	Near-term (candidate for grant funding)

Project Name	Plan	Location	Project Description	Status	Timeline & Next Steps for Implementation
Rialto ATP Segment ID #32	Rialto ATP	Cactus Avenue (Merrill Avenue – Valley Boulevard)	• Class III bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #33	Rialto ATP	PE Trail Access (PE ROW via Larch Avenue - Etiwanda Avenue)	• Class III bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #34	Rialto ATP	Holly Street (Pepper Avenue - Lilac Avenue)	• Class III bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #35	Rialto ATP	Bohnert Avenue (N. Locust Avenue - Cactus Avenue)	• Class III bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #36	Rialto ATP	Home Street (Riverside Avenue - Eucalyptus Avenue)	• Class III bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #37	Rialto ATP	Maple Avenue (Foothill Boulevard - Randall Avenue)	• Class III bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #38	Rialto ATP	Apple Avenue (Cactus Avenue - Casmalia Street)	• Class III bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #39	Rialto ATP	Larch Avenue (Merrill Avenue - San Bernardino Avenue)	• Class III bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #40	Rialto ATP	Fromer Street/ Sage Avenue (Sycamore Avenue - Randall Avenue)	• Class III bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #41	Rialto ATP	Grove Street (Cactus Avenue - Cedar Avenue)	• Class III bikeway	Not completed	Near-term (candidate for grant funding)

Project Name	Plan	Location	Project Description	Status	Timeline & Next Steps for Implementation
Rialto ATP Segment ID #42	Rialto ATP	Alru Street (Larch Avenue - Cactus Avenue)	• Class III bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #43	Rialto ATP	Sunrise Drive (N. Palmetto Avenue - N. Alder Avenue)	• Class III bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #44	Rialto ATP	Shirly Bright Road (Pepper Avenue - Walnut Avenue)	• Class III bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #45	Rialto ATP	Maple Avenue/ West Coast Boulevard (Locust Avenue - Bohnert Avenue)	• Class III bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #46	Rialto ATP	E. Winchester Drive (Pepper Avenue - Eucalyptus Avenue)	• Class III bikeway	Not completed	Near-term (candidate for grant funding)
Rialto ATP Segment ID #47	Rialto ATP	Jurupa Avenue (Riverside Avenue -City Limits)	• Class III bikeway	Not completed	Near-term (candidate for grant funding)
Rialto SSARP Location #1	Rialto SSARP	Cedar Avenue at Merrill Avenue	• Provide 1-second all-red clearance interval for N/S left-turns, extend NB/SB all-red clearance interval by 0.5 seconds, convert NB/SB lead/ lag left-turn arrows to all-time leading operation, upgrade vehicle detection to video detection system, install EB/ WB Protected-Permissive Left-Turn (PPLT) arrow, and add advance limit lines for all approaches	Completed: Awarded in HSIP Cycle 11	N/A

Project Name	Plan	Location	Project Description	Status	Timeline & Next Steps for Implementation
Rialto SSARP Location #2	Rialto SSARP	Foothill Boulevard at Pepper Avenue	• Renew existing intersection striping, add EB right-turn arrow pavement marking at limit line, install EB near-side "Right Lane Must Turn Right" (R3–7) sign, install NB Protected-Permissive Left-Turn (PPLT) arrow, and consider widening NB approach to provide new right-turn pocket	Submitted application – Not awarded in HSIP Cycle 11	Mid-term: Submitted for SS4A Implementation Grant in 2025
Rialto SSARP Location #3	Rialto SSARP	Riverside Avenue at Valley Boulevard	• Renew existing intersection striping, install NB "No U-Turn" (R3–4) sign, install additional NB/SB mast-arm indications, install EB right-turn overlap arrow, install additional safety lighting on NW & SE corners, and consider widening SB approach to provide new right-turn pocket	Not completed	Mid-term: Apply for grant funding sources
Rialto SSARP Location #4	Rialto SSARP	Riverside Avenue at I-10 Ramps	• Request that Caltrans provide and/or increase all-red time, request that Caltrans install additional NB & SB mast-arm indications, and request that Caltrans conduct a detailed traffic safety study	Not completed	Mid-term: Apply for grant funding sources

Project Name	Plan	Location	Project Description	Status	Timeline & Next Steps for Implementation
Rialto SSARP Location #5	Rialto SSARP	Foothill Boulevard at Cedar Avenue	• Consider increasing all-red time at night, install EB & WB near-side indications, and install additional EB & WB mast-arm indications	Not completed	Mid-term: Apply for grant funding sources
Rialto SSARP Location #6	Rialto SSARP	Riverside Avenue at Baseline Road	• Replace WB mast-arm lane assignment sign w/ "No U-Turn" (R3–4) sign, install NB, SB, & WB near-side indications, and upgrade mast arm pole on NW corner of intersection	Not completed	Mid-term: Submitted for SS4A Implementation Grant in 2025
Rialto SSARP Location #7	Rialto SSARP	Eucalyptus Avenue at Baseline Road	• Full modernization of traffic signal	Completed	N/A
Rialto SSARP Location #8	Rialto SSARP	Foothill Boulevard at Riverside Avenue	• Prohibit stopping for 150′ on north leg (SB approach/NB departure), install WB "No U-Turn" (R3–4) signs, install NB & SB near-side indications, install additional safety light on SE corner, and install NB right-turn overlap arrows	Not completed	Mid-term: Submitted for SS4A Implementation Grant in 2025
Rialto SSARP Location #9	Rialto SSARP	Foothill Boulevard at Sycamore Avenue	• Renew existing intersection striping, improve EB right-turn trap lane channelization with painted median, install new NB & SB poles with mast-arms and indications, and restripe NB & SB approaches to provide left-turn pockets	Not completed	Mid-term: Submitted for SS4A Implementation Grant in 2025

Project Name	Plan	Location	Project Description	Status	Timeline & Next Steps for Implementation
Rialto SSARP Location #10	Rialto SSARP	Riverside Avenue at Easton Street	• Install WB right-turn overlap arrows, install additional NB & SB mast-arm indications, and replace EB mast arm with longer mast arm to better align indications	Not completed	Mid-term: Apply for grant funding sources
Rialto SSARP Location #11	Rialto SSARP	Downtown Rialto (Riverside Avenue at 2nd/3rd Street)	• Concentrate pedestrian crossings at a single high visibility crosswalk, install "saw tooth" yield markings at median, and install double-posted rectangular rapid flashing beacons (RRFB)	Not completed	Mid-term: Submitted for SS4A Implementation Grant in 2025
Rialto SSARP Location #12	Rialto SSARP	Riverside Avenue at Merrill Avenue and Bloomington Avenue	• Reconfigure striping to better define intersection, add cat-tracking for Bloomington Avenue movements, and consider widening SB approach to provide new right-turn pocket	Not completed	Mid-term: Apply for grant funding sources
Rialto SSARP Corridor #1	Rialto SSARP	Riverside Avenue	• Strive for consistent speed zoning, improve street and safety lighting, modify traffic signal operations, install raised median islands with landscaping, and target improvements at Riverside/Merrill/ Bloomington	Partially Completed	Near-term: implement remaining components

Project Name	Plan	Location	Project Description	Status	Timeline & Next Steps for Implementation
Rialto SSARP Corridor #2	Rialto SSARP	Foothill Boulevard	• Convert State Route into boulevard, consider extending all-red clearance intervals, improve safety lighting at signalized intersections, narrow travel lanes, and modernize traffic signals	Not completed	Mid-term: Apply for grant funding sources
Rialto SSARP Corridor #3	Rialto SSARP	Baseline Road	• Install radar feedback signs, consider extending all-red clearance intervals, and target improvements at Baseline/Eucalyptus and Baseline/ Sycamore	Partially Completed	Near-term: implement remaining components
Rialto SSARP Corridor #4	Rialto SSARP	Cedar Avenue/ Ayala Drive	• Upgrade safety lighting, review traffic signal timing, complete pedestrian facilities, control access strategically, and target improvements at Cedar/Merrill and Cedar/Etiwanda	Not completed	Mid-term: Apply for grant funding sources
Rialto SSARP Corridor #5	Rialto SSARP	Cactus Avenue	• Develop and implement Complete Street project and consider new traffic signal installations (3)	Not completed	Mid-term: Apply for grant funding sources
Rialto SSARP Corridor #6	Rialto SSARP	Eucalyptus Avenue	• Implement traffic calming strategies, establish a school outreach program, establish "No Parking" zones, upgrade "School Zone" signage and markings, and target improvements at Eucalyptus/Baseline	Partially completed	Near-term: implement remaining components

Project Name	Plan	Location	Project Description	Status	Timeline & Next Steps for Implementation
Rialto SSARP Corridor #7	Rialto SSARP	Casmalia Street	• Strive for consistent speed zoning, develop western portion for future growth, target improvements at Casmalia/ Ayala, and target improvements at Casmalia/Cactus and Casmalia/Lilac	Not completed	Mid-term: Apply for grant funding sources

Table 21: Recent and Future Roadway and Additional Projects in Rialto

Project Name	Timeline	Roadway Improvements
Curb, Gutter, Sidewalk Improvements 2021	Completed	Improvements to enhance curb, gutter, and sidewalks.
Easton Sidewalk Improvement	Completed	Sidewalk improvements between Acacia Ave to Highland Ave.
Pepper and Winchester Drive/Terrace Road	Completed	Installation of a traffic signal to improve traffic flow and safety.
Terra Vista Neighborhood SRTS	Completed	Safe Routes to School improvements to improve bicycle and pedestrian safety and accessibility.
Ayala and Fitzgerald	Completed	Installation of a traffic signal to improve traffic flow and safety.
Cedar Avenue Sidewalk and Railroad Crossing Improvements	In construction	Construction of a new sidewalk on Cedar Avenue and installation of pedestrian gates and panels at the railroad crossing.
City of Rialto Traffic Signal Improvements – Left Turn Phasing	Completed	Installation of Protected-Only left turn signal phasing and signal hardware at Baseline Road and Sycamore Avenue (E/W Direction).
City of Rialto Traffic Signal Improvements – Left Turn Phasing	Completed	Installation of Protected-Only left turn signal phasing and signal hardware at Baseline Road and Eucalyptus Avenue (E/W Direction).
City of Rialto Traffic Signal Improvements – Left Turn Phasing	Completed	Installation of Protected-Only left turn signal phasing and signal hardware at Riverside Avenue and Alder Avenue (N Direction).
City of Rialto Traffic Signal Improvements – Left Turn Phasing	In construction	Installation of Protected-Only left turn signal phasing and signal hardware at Cedar Avenue and Etiwanda Avenue.
Pepper Avenue Street Reconstruction Project	In construction	Full depth street reconstruction. The project will also include reconstruction of damaged curbs, gutters, sidewalk, curb ramps, cross gutters and spandrels, and driveway approaches.
Baseline Road Median	In construction	Construct raised median and signage on Baseline Road from Riverside Avenue to Pepper Avenue.

Project Name	Timeline	Roadway Improvements
Alder & 210 Freeway	Pre-construction	The project proposes modifications to include widening the existing Alder Avenue overcrossing (OC) structure spanning SR-210 providing additional capacity, allowing for increased freight movement per the City of Rialto General Plan.
City-Wide Pavement Rehabilitation Project	In construction	Reconstruction of approximately 15 miles of City streets with reconstruction of curb ramps.
Class II Bike Lanes	Pre-bid	Construct Class II bike lanes along Merrill Avenue from Riverside Avenue to Eucalyptus Avenue.
Merrill SRTS Project	In design	Construct curb ramps, driveway approaches, and sidewalk improvements on South Street, Huff Street, Carter Street, Orchard Street, Joyce Avenue, Sycamore Avenue, Acacia Avenue, and Merrill Avenue.
Sycamore SRTS Project	In planning stage	Replacement or construction of curb ramps, driveway approaches, sidewalk improvements, and signing and striping along Sycamore Avenue between Baseline Road and Walnut Avenue.
Bemis Elementary School SRTS Project	In planning stage	Replacement or construction of curb ramps, driveway approaches, sidewalk improvements, and signing and striping along various local and collector roads around Bemis Elementary School.
Cedar/Merrill Traffic Signal Improvements – Left Turn Phasing	Completed	Installation of Protected-Only left turn signal phasing and signal hardware and equipment at the intersection of Cedar Avenue and Merrill Avenue.

10. STRATEGY AND PROJECT SELECTIONS

10.1 CONSIDERATION 1: TOP FIVE CHALLENGE AREAS

One of the main considerations when developing focus areas for the Safety Action Plan (SAP) is where Rialto is exceeding the statewide average for certain challenge areas. When looking at the percentage of all crashes within a defined area that involve fatal or suspected serious injuries, there are five challenge areas where Rialto exceeds the average for California for crashes involving: Pedestrians, impaired driving, intersections, young drivers, and aggressive driving.

The percentage of fatal and suspected severe injury crashes involving pedestrians from 2016–2021 is 7.7% higher than the statewide average, while impaired driving crashes are 6% higher than the statewide average and crashes in intersections are 5% higher. Crashes involving younger drivers are 3.7% higher than the statewide average and aggressive driving crashes are 3.4% higher.

The locations of these crashes using data from 2018 to 2023 or each of the top five challenges were considered, along with the output of the network screening results for each of the top five challenge areas. From these results, the majority of overlap occurred along Riverside Avenue

10.2 CONSIDERATION 2: EPDO RANKING FOR SEGMENTS AND INTERSECTIONS

Using the outputs from the network screening analysis with 2018–2023 crash data, focus areas were also determined by examining the intersections and segments with the highest Equivalent Property Damage Only (EPDO) crashes, which considers all crashes and their severities. Four of the five segments with the highest EPDO rankings are on Riverside Avenue, with Merrill Avenue being the fifth segment within the top five highest EPDO scores. Riverside Avenue between Santa Ana Avenue and Mindanao Street had the highest EPDO score with 511, followed by Riverside Avenue between Jurupa Avenue and Industrial Street with a score of 506, Riverside Avenue between Valley Boulevard and San Bernardino Avenue with a score of 477, Merrill Avenue between Linden Avenue and Cedar Avenue with a score of 351, and Riverside Avenue between Industrial Drive and Bryant Street with a score of 340. Of 44 segments, 21 have EPDO scores higher than 150. The EPDO scores of the rest of the segments are significantly lower, ranging from 18 to 69.

Intersections overall had higher EPDO scores than segments, as most crashes during the study period occurred at intersections. From this examination, there are 30 intersections with EPDO scores above 200. Of these intersections, nine involve Riverside Avenue and three involve Merrill. The intersection of Cedar Avenue and Merrill Avenue had the highest EPDO score of all the analysis intersections.

10.3 CONSIDERATION 3: EQUITY

In addition to analyzing the frequency and severity of crashes, it is also important to examine existing conditions related to vulnerable populations to ensure that roadway and intersection improvements are implemented fairly. Data from the Justice 40 initiative via the Climate and Economic Justice Screening Tool (CEJST) were utilized to identify disadvantaged census tracts within Rialto. 21 of 33 census tracts within the City of Rialto identify as disadvantaged and intersect with several major arterials and intersections.

10.4 GEOGRAPHIC FOCUS AREA

When taking into account the three aforementioned considerations—Top Five Challenge Areas, High-Ranking EPDO Segments and Intersections, and Equity—there are several areas within Rialto that should be focus on for further analysis and/or improvements

Area 1 – Riverside Ave

As a major north-south arterial traversing the length of the city, Riverside Ave is a keystone in Rialto's transportation network. Crashes from all five challenge areas were concentrated along Riverside Ave, and a good portion of fatal and severe injury bike and pedestrian crashes occurred along Riverside Ave. Also, the entirety of Riverside Ave south of SR-210 travels through CalEnviroScreen disadvantaged communities. This suggests that Riverside Ave has an overall negative impact on transportation safety in Rialto, and improvements and enforcement along this corridor could lead to significant reductions in crashes and crash severities.

Area 2 - Shopping Centers

Major shopping centers, including but not limited to, Rialto Marketplace, North Rialto Center, Rancho Verde Plaza, and Renaissance Marketplace are important activity center in Rialto. These shopping centers employ residents primarily in lower-paying retail and food service jobs, who are more likely to rely on walking, biking, or transit to commute to work than other residents. In addition, a majority of trips in Rialto under half a mile in length were walking trips, suggesting residents living near these shopping centers choose to walk to run errands. Many of these shopping centers are located along Riverside Ave, or near I-10 and SR-210, both of which are areas with high numbers of bicycle and pedestrian-involved crashes. Feedback from the SAP survey indicated that residents ranked sidewalk and pedestrian improvements as the most important and necessary safety enhancement in Rialto

Area 3 - Areas Frequented by Younger and Older Residents

The SAP's crash analysis and equity screening indicated that children under 18 and seniors 65 and older were more likely to be killed or severely injured than other residents. Notably, children were more likely to be involved in crashes as bicyclists, while seniors were more likely to be involved in crashes as pedestrians. Active transportation improvements centered around schools, libraries, parks, shopping centers, and senior centers would help to reduce crashes affecting Rialto's most vulnerable populations. Improvements around schools would also compound safety improvements underway as part of Rialto's Safe Routes to School Plan.

10.5 BEST PRACTICES EVALUATION AND EMPHASIS AREAS

Table 22 identifies existing plans and policies that were recently completed, or are planned, or on-going within the City of Rialto. The intent of this review is to provide an idea of the types of strategies in place or encouraged by the City that may impact the safety analysis process. It will also identify opportunity areas where the City could adopt non-infrastructure countermeasures. This table also ties each topic and enhancement to the emphasis areas that are laid out in **Table 19** through **Table 21**.

Table 22: Summary of Rialto's Current Programs and Policies Regarding Transportation Safety

Summary of Programs, Policies, and Practices for the City of Rialto		
Topic	**Initiatives / Current Status**	**Recommended Next Steps/Actions**
Committees / Roles		
City Active Transportation Coordinator	City Engineer	City Engineer register as Active Transportation Coordinator.
Safety or Active Transportation Advisory Committee	Yes, under Transportation Commission	City Council completing reorganization of Planning/ Transportation joint commission
Active Transportation Safety Education Program	Not formal, included in ATP recommendations	Continue to organize workshops, assemblies, and other educational events to raise awareness for traffic safety through grant opportunities.
Policy / Plans		
Complete Streets Plan	Yes, Completed	
Traffic Impact Fees	Yes	DIF study under way to update fees.
Safe Routes to School Program	Yes	Continue to implement SRTS projects around schools
Traffic Calming Policies	Yes	Continue to implement Traffic Calming Projects and Policies around the city.
Regular Speed Surveys	Yes – conducted citywide 2022 or 2023	Continue to regularly conduct speed surveys.
Warrants for Stop Signs and Signals	Both local and CA MUTCD (more geared to State); consultant traffic engineer handles requests, commission studies for improvements – per MUTCD warrants	Continue to have consultant traffic engineer complete warrant studies.
Density and Walkable Areas Planned in the City	Foothill Boulevard	Follow and develop according to Foothill Boulevard Specific Plan.
Transportation Demand Management (TDM), and Vehicle Miles Travelled (VMT) Reduction policies	City of Rialto Traffic Impact Analysis (TIA) Guidelines for VMT and LOS, October 2021	Follow and develop according to City of Rialto.

Summary of Programs, Policies, and Practices for the City of Rialto		
Topic	**Initiatives / Current Status**	**Recommended Next Steps/Actions**
Traffic Crash Monitoring	No Actively Monitored	Collaborate with PD to perform Traffic Crash monitoring and updating recent data on a dashboard to visualize trends.
Active Transportation Master Plan	Yes, completed 2018	Refresh ATP within the next few years.
MUTCD-compliant Pedestrian Signal Timing	Yes, but no LPIs	Consider implementing LPIs to create safer crossing environments for pedestrians. Commission consultant traffic engineer to complete studies.
Implementing Crosswalks at High Pedestrian Locations	Not currently; look into recommendations as data is analyzed; report recently recommended moving some unsafe crosswalks – some have been removed	Work to implement crosswalks at high pedestrian locations. City should also look into why the crosswalk is unsafe and work to improve conditions rather than removing a vital part of the pedestrian network - 2015 uncontrolled crosswalk study.
Traffic Enforcement	City uses speed feedback signs (more for calming than enforcement); utilize DUI checkpoints	Continue using speed feedback signs/DUI checkpoints, increase enforcement in areas where aggressive driving, speeding, and accidents occur.
City Bicycle Policy	Check municipal code (sidewalk use, helmet laws)	Pursue grant opportunities to establish Bicycle Master Plan and revise Active Transportation Plan.
Transit in Rialto	Bus (SBCTA), Metrolink, not BRT; Vanpool and paratransit exist (funded by City through senior center)	Work with transit agencies to coordinate their master plan into community.
Wayfinding	At City Hall, Metrolink Station, Bloomington PE Trail	Expand program where applicable.

Summary of Programs, Policies, and Practices for the City of Rialto		
Topic	**Initiatives / Current Status**	**Recommended Next Steps / Actions**
Data Collection / Inventory		
Inventory of Pedestrian Signs and Signals	Inventory of pedestrian signals. No current sign inventory	Create an inventory of all signals/ signs/crossings. City to seek grant opportunities.
Inventory or Map of Active Transportation Routes	SBCTA has a shapefile	Work with SBCTA to ensure public facing shapefiles and maps get updated as new Active Transportation Routes are implemented.
Crossroads Database for Collisions	Not currently; PD manages own crash data	Partner with PD and research TIMS and SWITRS data.
Active Transportation Volume Counting	Collected upon request but not regularly	Collect active transportation volumes with ATP and other multimodal studies and programs at regular intervals.
Coordination / Feedback		
Safety Feedback Forum for Citizens	City established mobile application (myRialto); currently allows calling/ emailing or using City website to submit feedback – funnels to public works/traffic	Monitor and respond to safety concerns.
Interagency Coordination	Coordination conducted with relevant parties as needed per project/development; private sector projects mandate standard coordination meetings	Partner in project and grant development with neighboring cities and school district. Continue to seek grant opportunities for project implementation.
School Engagement	Construction notice include schools; events between PD and schools related to bicycle safety, annual bike rodeo	Seek grant opportunities to continue engaging with schools and hosting safety related educational events annually or more frequently.
Law Enforcement/Emergency Service Engagement	As needed basis	Perform more Law Enforcement/ Emergency Service based engagement to foster relationships and collaboration between law enforcement and the community

11. EMPHASIS AREAS

Emphasis areas represent crash factors that are common in the City and provide the opportunity to reduce the largest number of traffic injuries with strategic investment. Emphasis areas were developed by revisiting the vision and goals of the planning process and comparing them with the trends and patterns identified in the crash analysis.

Emphasis Area #1: Aggressive Driving

Description: Aggressive driving includes several behaviors such as speeding, tailgating, and ignoring traffic signals and signs. 874 collisions were a result of aggressive driving behaviors.

Goals for Emphasis Area #1:

- Reduce the number of crashes due to aggressive driving in the city.
- Identify hot spots and priority corridors where more aggressive driving collisions occur.
- Apply for funding and implement countermeasures to address aggressive driving.

Strategies for Emphasis Area #1

- Educational campaign to target aggressive driving.
- Increase law enforcement presence and enforcement of traffic laws related to aggressive driving.
- Implement traffic calming improvements and establish a monitoring program to determine which measures are most effective.

Emphasis Area #2: Impaired Driving

Description: Impaired driving includes collisions where any evidence of drug or alcohol use by the driver is present, even if the driver was not over the legal limit.

234 collisions in the study period involved impaired drivers.

Goals for Emphasis Area #2

- Reduce the number and severity of impaired driving crashes in the city
- Increase impaired driving awareness to help drivers make responsible decisions and avoid driving under the influence.
- Apply for funding to implement countermeasures to reduce impaired driving crashes

Strategies for Emphasis Area #2

Establish or enhance enforcement programs to reduce impaired driving, such as:

- Policies and program activities that aim to reduce underage drinking and impaired driving
- Promote the use of transportation alternatives such as ride hailing, public transit and designated sober driver programs
- High visibility enforcement to promote public awareness of the dangers of impaired driving and change high-risk behaviors
- Improve access to alternative transportation such as ridesharing services, public transportation, and designated driver programs. Promote these options as convenient and affordable alternatives to driving under the influence.

Emphasis Area #3: Bicyclist and Pedestrian Safety

Description: Bicyclist and Pedestrian safety was a major concern of residents and a significant cause of severe injury and fatality crashes in Rialto. Bicyclist and pedestrian safety aims to create an environment where non-motorists feel safe and confident while travelling through the City.

Goals for Emphasis Area #3

- Reduce the number and severity of bicycle crashes in Rialto
- Increase bicycles safety on Rialto streets
- Increase visibility of bicyclists
- Increase cohesiveness of bicycle network

Strategies for Emphasis Area #3

- Provide outreach, education, and enforcement programs to encourage safer driving behaviors near bicyclist
- Install bicycle facilities along key corridors and neighboring city connections
- Work closer with local advocacy groups and bicycle clubs to assist in prioritizing bicycle improvements

Emphasis Area #4: Intersections

Description: Collisions identified by the responding officer as occurring at an intersection or involving a train or rail vehicle. Intersection collisions accounted for 1657 collisions with thirty-five (35) fatal crashes, eighty-seven (87) severe injury crashes, and 1535 minor injury/possible injury crashes.

Goals for Emphasis Area #4

- Reduce the number and severity of collisions at intersections
- Provide safe infrastructure for all modes of transportation through upgrades to existing infrastructure
- Standardize intersections as well as possible through common infrastructure and hardware.

Strategies for Emphasis Area #4

- Apply for additional funding to implement countermeasures to reduce intersection collisions.
- Implement crosswalks on all legs of intersections where possible.
- Continue to implement systemic improvements and hardware upgrades (recent HSIP Cycle 12 application to install new signal heads with reflective backplates, controllers, and leading pedestrian intervals at signalized intersections in the Rialto.

Case Study Locations

Based on the safety analysis in Section 4, The following 11 case study locations were chosen to be representative of the corridor and intersection configurations throughout the City. These locations were identified through the analysis process based on their crash rates, crash patterns, stakeholder suggestions, and their different characteristics and functions. The purpose of this was to provide the most insight into potential systemic safety countermeasures that the City can explore further to achieve the most cost-effective safety benefits. Countermeasures were subjected to a benefit/cost assessment and scored according to their potential return on investment. These case studies can be used to select the most appropriate countermeasure, and to potentially phase improvements over the longer-term. The potential benefit of these countermeasures at locations with similar design characteristics can then be extrapolated regardless of crash history, allowing for proactive safety enhancements that can prevent future safety challenges from developing. Additionally, this information can be used to help the City apply for grants and other funding opportunities to implement these safety improvements.

A safety Project Case Study was developed for each of the following locations:

1. **Intersection:** Cedar Avenue & Merril Avenue
2. **Intersection:** Riverside Avenue & West Foothill Avenue
3. **Intersection:** Linden Avenue & Merrill Avenue
4. **Segment:** Riverside Avenue – San Bernardino Avenue to Valley Boulevard
5. **Intersection:** Sycamore Avenue & Baseline Road
6. **Intersection:** N Alder Avenue & Riverside Avenue
7. **Intersection:** Acacia Avenue & Rialto Avenue
8. **Segment:** Riverside Avenue – Agua Mansa Road & Miguel Bustamante Parkway
9. **Intersection:** Sycamore Avenue & San Bernardino Ave
10. **Segment:** S Riverside Avenue – Industrial Drive to Jurupa Avenue
11. **Segment:** Merrill Avenue – Linden Avenue to Cedar Street

The individual case study sheets are located in **Appendix A**.

12. PROGRESS AND TRANSPARENCY

12.1 FUNDING SOURCES

Competitive funding resources are available to assist in the development and implementation of safety projects in Rialto. The City should continue to seek available funding and grant opportunities from local, state, and federal resources to accelerate their ability to implement safety improvements throughout Rialto. This section provides high-level introductions to some of the main funding programs and grants for which the City can apply.

12.1.1 Highway Safety Improvement Program (HSIP)

The Highway Safety Improvement Program (HSIP) is a federally funded, Caltrans-managed program that apportions funding as a lump sum for each state, which is then divided among apportioned programs. These flexible funds can be used for projects to preserve or improve safety conditions and performance on any Federal-aid highway, bridge projects on any public road, facilities for non-motorized transportation, and other project types. Safety improvement projects eligible for this funding include:

- Curb-extensions
- Pedestrian warning flashing beacons
- High visibility crosswalks
- Other projects listed in the Caltrans Local Road Safety Manual

California's Local HSIP focuses on infrastructure projects with national recognized crash reduction factors. Normally HSIP call-for-projects is made at an interval of one to two years. The applicant must be a city, a county, or a tribal government federally recognized within the State of California.

Additional information regarding this program at the Federal level can be found online at: ***https://highways.dot.gov/safety/hsip***. California specific HSIP information – including dates for upcoming call for projects – can be found at: ***https://dot.ca.gov/programs/local-assistance/fed-and-state-programs/highway-safety-improvement-program***.

12.1.2 Caltrans Active Transportation Program

Caltrans Active Transportation Program (ATP) is a statewide funding program, created in 2013, consolidating several federal and state programs. The ATP funds projects that encourage increased mode share for walking and bicycling, improve mobility and safety for non-motorized users, enhance public health, and decrease greenhouse gas emissions. Projects eligible for this funding include:

- Bicycle and pedestrian infrastructure projects
- Bicycle and pedestrian planning projects (e.g. safe routes to school)
- Non-infrastructure programs (education and enforcement)

This program funding is provided annually. The ATP call for projects typically comes out in the spring. Information on this program and cycles can be found online at: https://dot.ca.gov/programs/local-assistance/fed-and-state-programs/active-transportation-program

12.1.3 California SB 1

The California SB 2 is a landmark transportation investment to rebuild California by fixing neighborhood streets, freeways, and bridges in communities across California and targeting funds toward transit and congested trade and commute corridor improvements.

California's state-maintained transportation infrastructure will receive roughly half of SB 1 revenue: $26 billion. The other half will go to local roads, transit agencies, and expansion of the state's growing network of pedestrian and cycle routes. Each year, this new funding will be used to tackle deferred maintenance needs both on the state highway system and the local road system, including:

- Local Street and Road Maintenance and Rehabilitation: $1.5 billion
    - This funding is dedicated to improving local road maintenance, rehabilitation, and/or safety through projects such as restriping and repaving.
- Bike and Pedestrian Projects: $100 million
    - This will go to cities, counties, and regional transportation agencies to build or convert ore bike paths, crosswalks, and sidewalks. It is a significant increase in funding for these projects through the ATP.
- Local Planning Grants: $25 million

12.1.4 California Office of Traffic Safety Grants

This program has funding for projects related to traffic safety, including transportation safety education and encouragement activities. Grant applications must be supported by local crash data (such as the data analyzed in this report) and must relate to the following priority program areas.

- Alcohol Impaired Driving
- Distracted Driving
- Drug-impaired Emergency Medical Services
- Motorcycle Safety
- Occupant Protection
- Pedestrian and Bicycle Safety
- Police Traffic Services
- Public Relations, Advertising, and Marketing Program
- Roadway Safety and Traffic Records

12.1.5 Safe Streets and Roads for All (SS4A) Grant Program

This program has allocated $1 billion annually from 2022 to 2026 for local cities, counties, MPOs, and other roadway owners (excepting state DOTs) for safety improvement grants for safety planning, education, enforcement, and roadway improvements. This program is not benefit / cost based. Evaluation criteria are oriented to the project's alignment with the Safe Systems approach. There is a 20% local match requirement (can be in-kind contribution via staff billable hours). Planning grants are open to any eligible agency and implementation grants are open to agencies with a completed safety plan such as a Local Roadway Safety Plan and Safety Action Plan. Planning grants are expected to range from $100K to $1M and implementation grants are expected to range from $1M to $20M. Grant applications are expected to be due in mid-2025.

12.1.6 Infrastructure Investment and Jobs Act

In November 2021, the President signed into law the $1.2 trillion Infrastructure Investment and Jobs Act. In addition to the SS4A grant program described above, this law provides billions of dollars in additional funding for improvements and investment in the transportation sector nationwide. The law provides $30 billion in funding over 5 years for competitive RAISE/BUILD grants for transportation projects, as well as additional funding for repair and environmental mitigation projects. As these rant programs continue to be developed, City can position itself by identifying potential projects and programs to pursue.

12.1.7 San Bernardino County Measure I

Measure I is a half penny sales tax to fund transportation improvements in San Bernardino County through 2040. Each member agency develops a capital improvement plan. Currently, over $20 million of projects in Rialto are being funded by Measure I through Fiscal Year 2028-2029.

12.2 IMPLEMENTATION PLAN

With the completion of the Safety Action Plan, the City will regularly review and monitor crash data for trends and changes. The City will prioritize and implement certain improvements that were identified in this plan.

12.2.1 Monitoring

The City can plan to regularly monitor the success of the SAP and its related implementations by performing the following steps. This before and after analysis can be performed every second year. The City can also meet with the Police Department on a regular basis to discuss roadway safety issues and compare to the latest crash analysis.

- Pull yearly crash data from Crossroads database to determine year-over-year trend
- Utilize Crossroads or GIS software to review the number of crashes occurring at specific locations. Locations where improvements have been made should receive priority for monitoring.
- Based upon changes in crash activity, determine efficacy of improvements and adjust strategies going forward

12.2.2 Analysis Update

Every five (5) years, the City will perform a major update to the analysis and the Safety Action Plan by performing the following steps. This update will maintain eligibility for grant funding for the City. This analysis should continue to focus on both systemic and location-specific safety needs.

1. Obtain updated Statewide Integrated Traffic Records System (SWITRS) crash data from the Crossroads or TIMS databases.
2. Identify new or changing hot spots through GIS mapping. Review crash data in changing trends, new land uses, and evolving driver behavior.
3. Update the roadway shapefile with any new or upgraded roadways.
4. Update the intersection shapefile with any new or upgraded intersections.
5. Evaluate crash trends to determine whether new emphasis areas are emerging
6. Document implemented countermeasures and review changes in crash activity.
7. Review the Crash Toolbox to determine if any additional countermeasures should be considered for implementation in the City.

12.3 IMPLEMENTATION STRATEGIES

The opportunities identified in this report provide systemic and location-specific countermeasures that can be implemented within the City. Implementation will be dictated by funding and available resources; this guidance is preliminary and subject to change. Over the near-term and mid-term, the City can concentrate its efforts on the following emphasis areas:

- Pedestrians
- Impaired Driving
- Intersection Crashes
- Young Drivers
- Aggressive Driving

Analysis conducted at the citywide level indicated that these factors were some of the most frequent influences contributing to crashes within the City. The countermeasure opportunities previously discussed in this report for both systematic and project-specific improvements can be used as a basis for developing projects at locations where addressing these focus areas would be of the most benefit. Projects that address these focused areas citywide can be developed with a high benefit-to-cost ratio (by applying citywide crash rates), allowing competitive projects to be developed even at sites with little to no direct crash history, but with conditions that might contribute to future crashes. For location-specific improvements, the City can utilize benefit-cost ratio calculations to help prioritize projects as funding and resources become available.

The City can also plan to implement the non-engineering improvements identified throughout this report, including actions related to Enforcement, Education, and Emergency Services. These actions will require coordination with internal and external stakeholders, such as City departments, law enforcement, local government organizations, and local community organizations. Early buy-in and engagement from these stakeholders will be key to the success of these actions.

To aid in these actions, the City can assemble a 'Task Force' of representatives from different city departments, such as Public Works, Community Development, and Code Enforcement. This task force will be instrumental in the monitoring, analysis update, project development, and project implementation outlined in this plan.

13. NEXT STEPS

The City has completed this SAP to guide the process of future transportation safety improvements for years to come. In addition to the actions identified in the Implementation Plan, the City can perform the following to guide the success of this SAP and the safety efforts overall.

Next Steps:

Develop investment program to help achieve the City's crash reduction goals.

Incorporate safety analysis findings in future updates of safety programs.

Work with state and partner agencies on implementation of large-scale programs and policies.

Monitor statewide safety priorities, guidance, and funding opportunities.

APPENDIX A. CASE STUDY SHEETS

Case Study Sheet: Location #1

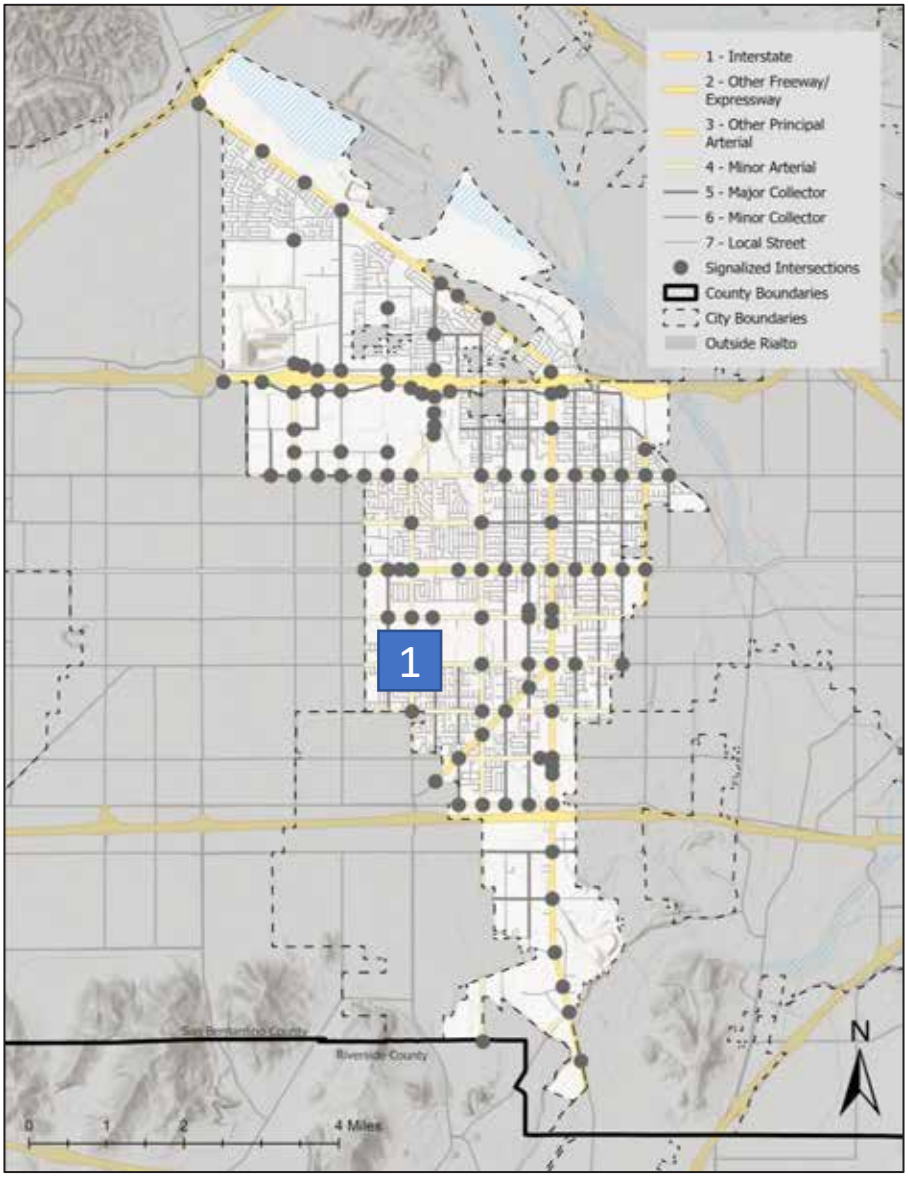
Project Name: Rialto Safety Action Plan
Agency Name: City of Rialto

SIGNALIZED INTERSECTION

Project Location, Description & Maps

Intersection: Cedar Avenue & Merrill Avenue

Example of Similar Intersection: N Pepper Avenue & E Foothill Boulevard



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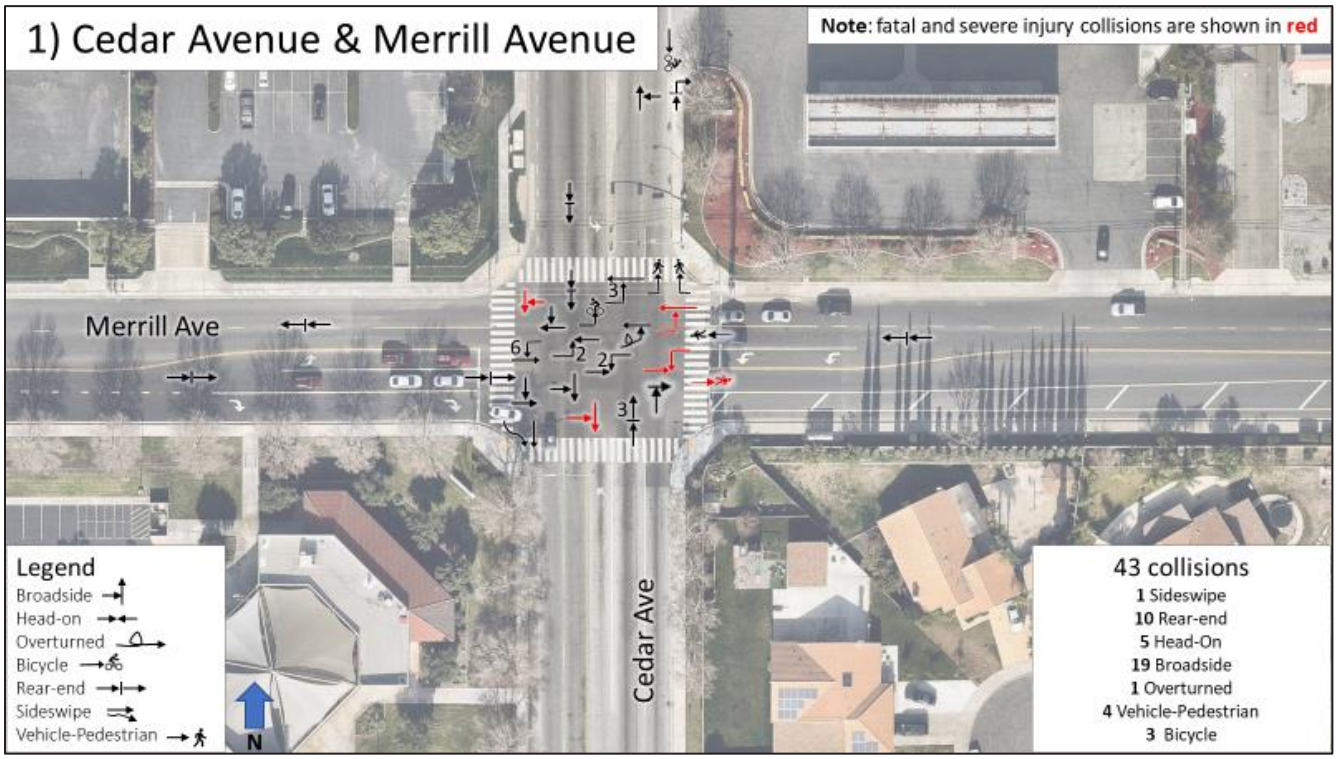
Case Study Sheet: Location #1



Project Location, Description & Maps

Collision Data	
Total Collisions	43
Fatal and Severe Injury Collisions	5
Top 3 Collision Types (%)	Broadside (46%) Rear End (23%) Head-On (12%)
Dark Collisions	0
Impaired Collisions	4

Collision Data	
Number of Approaches	4
Crosswalk Condition	Crosswalk on all approaches
Control Type	Signalized Intersection
Lighting	Yes
Highest Posted Speed Limit	45 MPH

Collisions Involved With		
Vehicular	**Pedestrian**	**Bicycle**
36	4	3

Field Visit Notes

- Cracking pavement, faded crosswalk markings, flooding
- High speeds encouraging aggressive driving behavior (2 drivers observed running red signal)

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Countermeasure Evaluation

Potential Countermeasures	Crash Reduction Factor (LRSM/CMF ID)	20 Year Safety Benefit	Total 20-Year Costs	Safety Related B/C Ratio
Install bicycle lanes	35% (R32PB)	$5,725,090	$3,360	1703.90
Provide protected left turn phase (left turn lane already exists)	30% (S07)	$4,907,220	$400,000	12.27
Install centerline rumble strips/stripes	20% (R30)	$3,271,480	$16,800	194.73
Improve signal hardware; lenses, backplate with retroreflective borders, mounting, size, and number	15% (S02)	$2,453,610	$4,032	608.53
Conflict bicycle striping	5% (N/A)	$817,870	$40,320	20.28

Case Study Sheet: Location #2

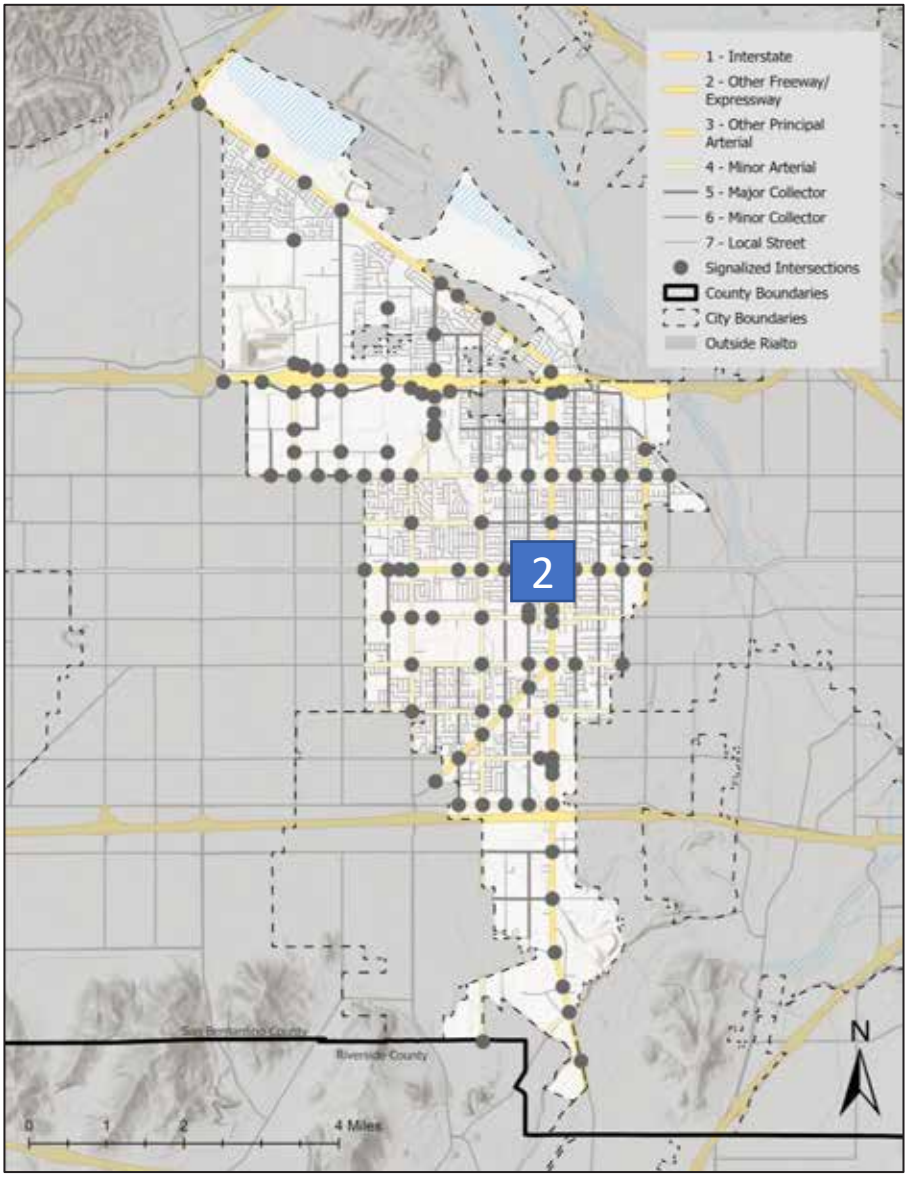
Project Name: Rialto Safety Action Plan
Agency Name: City of Rialto

SIGNALIZED INTERSECTION

Project Location, Description & Maps

Intersection: Riverside Avenue & West Foothill Avenue

Example of Similar Intersection: S Cedar Avenue & W Rialto Ave



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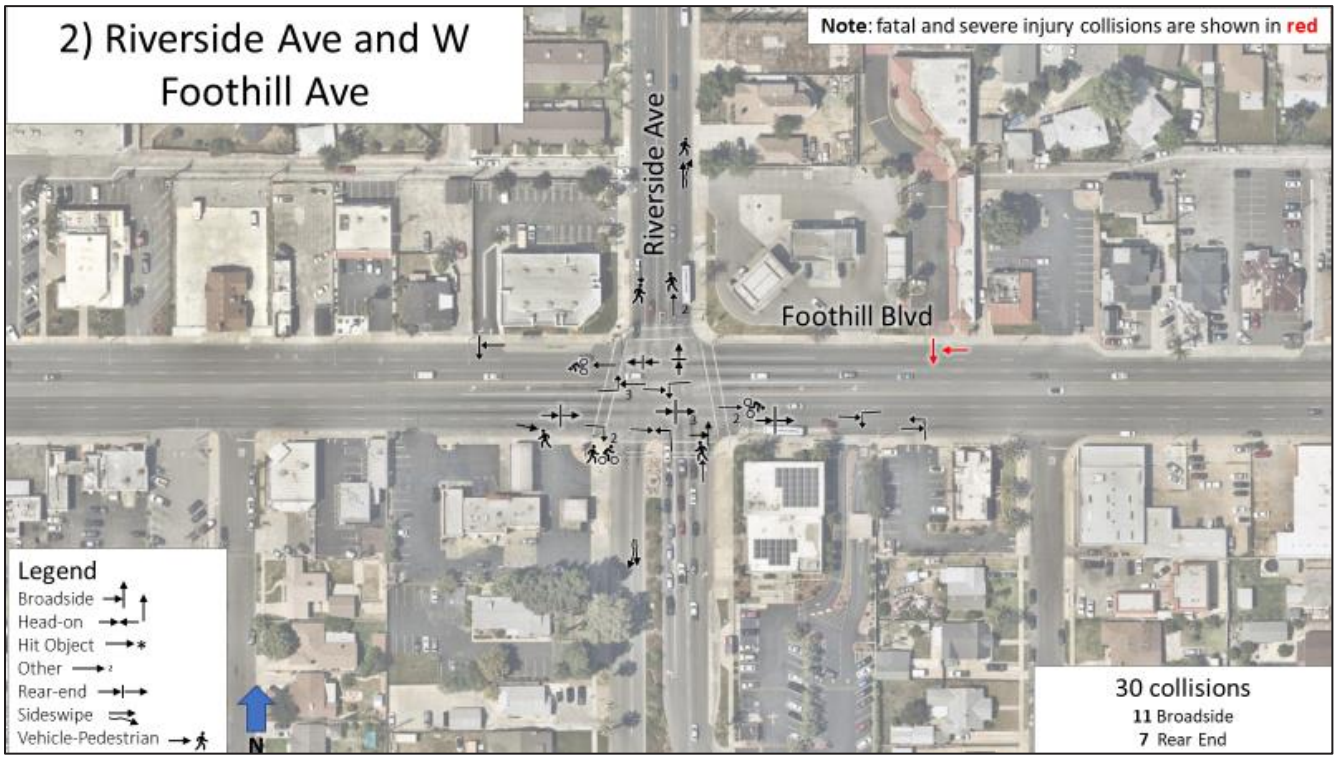
Case Study Sheet: Location #2



Project Location, Description & Maps

Collision Data	
Total Collisions	30
Fatal and Severe Injury Collisions	1
Top 3 Collision Types (%)	Broadside (37%) Rear End (23%) Head-On (10%)
Dark Collisions	0
Impaired Collisions	0

Collision Data	
Number of Approaches	4
Crosswalk Condition	Crosswalk on all approaches
Control Type	Signalized Intersection
Lighting	Yes
Highest Posted Speed Limit	40 MPH

Collisions Involved With		
Vehicular	**Pedestrian**	**Bicycle**
22	5	3

Field Visit Notes

- Striping and pavement markings faded
- Uneven grades throughout the intersection (Potential cause of rear end collisions)
- Wide lanes promoting speeding and aggressive driving behavior

Countermeasure Evaluation

Potential Countermeasures	Crash Reduction Factor (LRSM/CMF ID)	20 Year Safety Benefit	Total 20-Year Costs	Safety Related B/C Ratio
Modify signal phasing to implement a leading pedestrian interval	60% (S21PB)	$3,790,020	$1680	2255.96
Install audible push buttons	25% (S17PB)	$1,579,175	$20,000	78.96
Install high visibility crosswalk	25% (S18PB)	$903,250	$5,880	153.61
Install centerline rumble strips/stripes	20% (R30)	$1,263,340	$16,800	75.20
Install/upgrade signs with new fluorescent sheeting (regulatory or warning)	15% (R22)	$947,505	$40,000	23.69
Install edge-lines and centerlines	15% (R28)	$947,505	$31,000	30.56
Pedestrian Nose (Rubber)	5% (N/A)	$315,835	$48,000	6.58
Corner Islands	5% (N/A)	$315,835	$248,640	1.27
Prohibit Right Turn on Red	5% (N/A)	$315,835	$840	375.99
Pedestrian countdown heads	5% (N/A)	$315,835	$16,128	19.58
Increased pedestrian crossing times	5% (N/A)	$315,835	$2,520	125.33

Case Study Sheet: Location #3

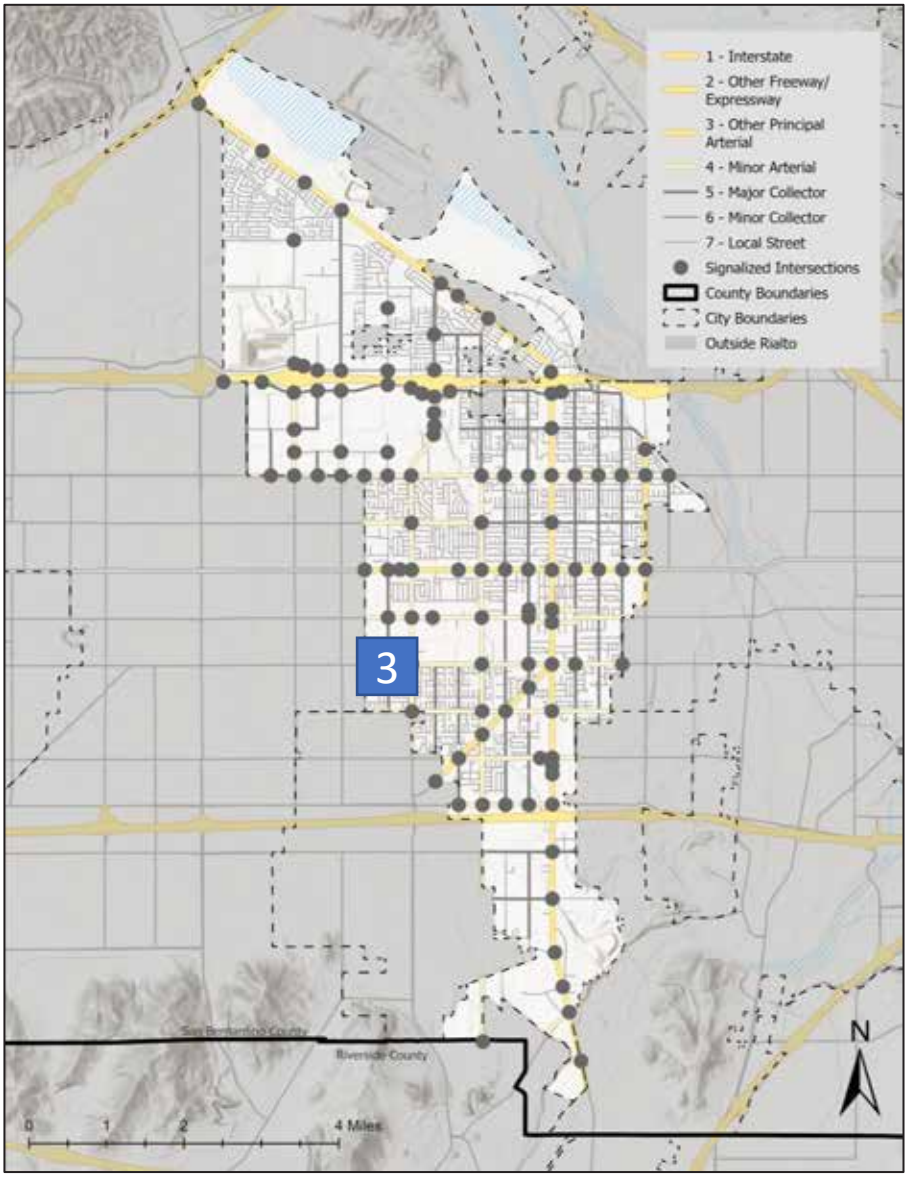
Project Name: Rialto Safety Action Plan
Agency Name: City of Rialto

UNSIGNALIZED INTERSECTION

Project Location, Description & Maps

Intersection: Linden Avenue & Merrill Avenue

Example of Similar Intersections: S Lilac Avenue & W Merrill Street



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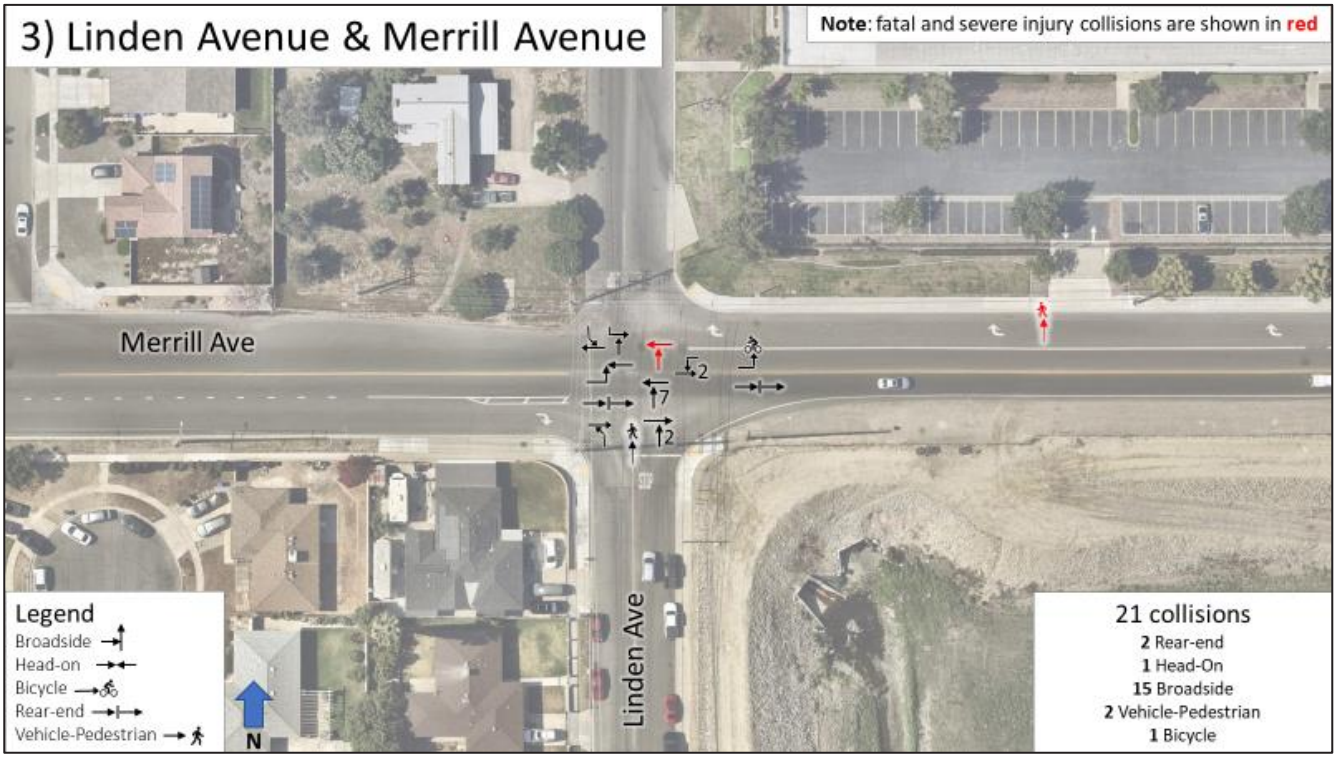
Case Study Sheet: Location #3



Project Location, Description & Maps

Collision Data	
Total Collisions	21
Fatal and Severe Injury Collisions	2
Top 3 Collision Types (%)	Broadside (71%) Rear-end/Vehicle-Pedestrian(19%)
Dark Collisions	1
Impaired Collisions	0

Collision Data	
Number of Approaches	4
Crosswalk Condition	No Crosswalks
Control Type	Unsignalized Intersection
Lighting	Yes
Highest Posted Speed Limit	45 MPH

Collisions Involved With		
Vehicular	**Pedestrian**	**Bicycle**
18	2	1

Field Visit Notes

- No sidewalk on some sections of Merrill Avenue
- Concerns with sight lines on Linden Ave Westbound turn lane

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Countermeasure Evaluation

Potential Countermeasures	Crash Reduction Factor (LRSM/CMF ID)	20 Year Safety Benefit	Total 20-Year Costs	Safety Related B/C Ratio
Install sidewalks	80% (R34PB)	$4,642,400	$122,500	37.89
Install/upgrade larger or additional stop signs or other intersection warning/regulatory signs	25% (NS06)	$870,450	$20,000	43.52
Improve signal hardware; lenses, backplate with retroreflective borders, mounting size, and number	15% (S02)	$870,450	$40,000	21.76
Install/upgrade pedestrian crossing at uncontrolled locations (w enhanced safety features)	5% (R35PB)	$290,150	$5,888	49.28

Case Study Sheet: Location #4

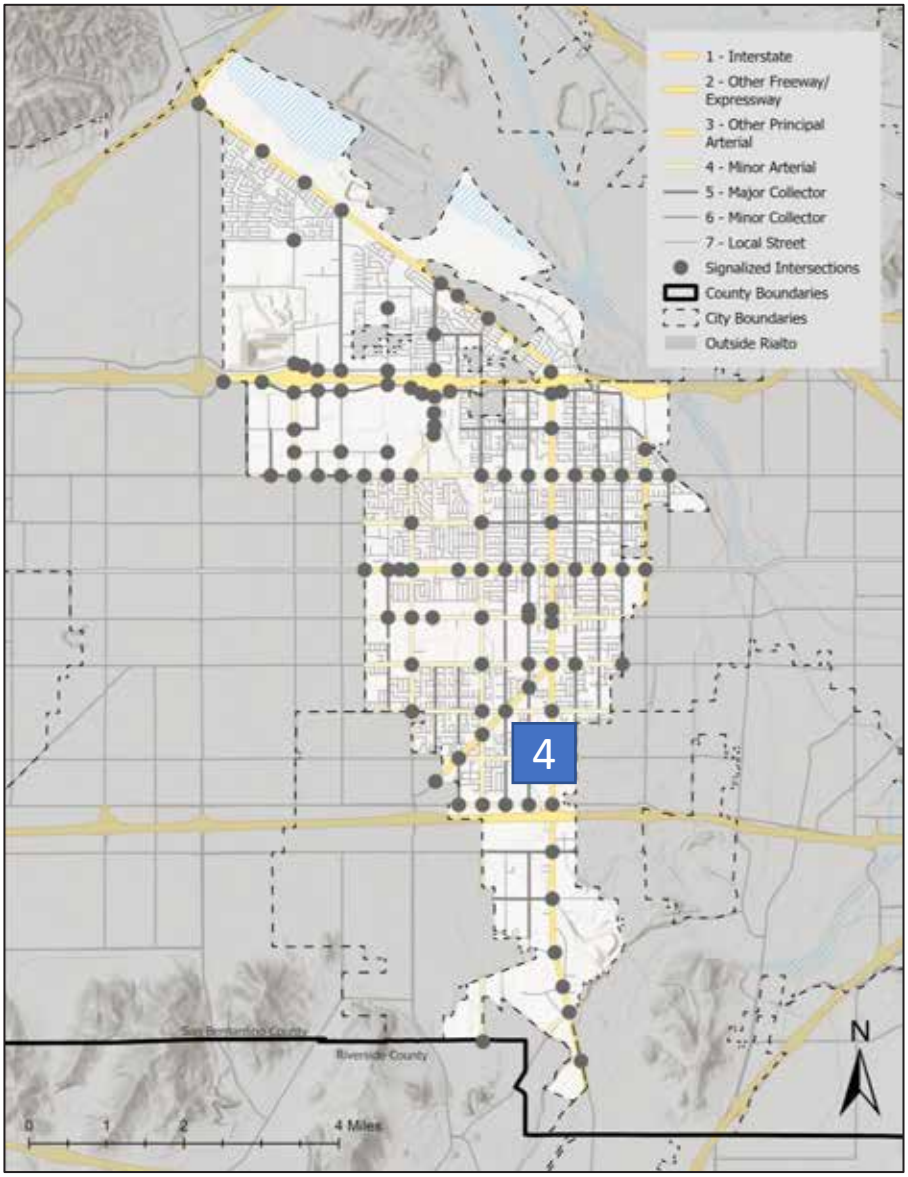
Project Name: Rialto Safety Action Plan
Agency Name: City of Rialto

ROADWAY SEGMENT

Project Location, Description & Maps

Segment: Riverside Avenue – San Bernardino Avenue to Valley Boulevard

Example of Similar Segments: Riverside Avenue – San Bernardino Avenue to Randall Avenue



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Case Study Sheet: Location #4

Project Location, Description & Maps

Collision Data	
Total Collisions	21
Fatal and Severe Injury Collisions	2
Top 3 Collision Types (%)	Rear-End (38%) Broadside (28%) Hit Object (14%)
Dark Collisions	0
Impaired Collisions	2

Collision Data	
Lighting	Yes
Median	Yes
Highest Posted Speed Limit	40 MPH

Collisions Involved With		
Vehicular	**Pedestrian**	**Bicycle**
19	1	1

Field Visit Notes

- Very busy commercial area with restaurants, grocery stores, big box retail
- Bikeshare nearby with no bike lanes

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Countermeasure Evaluation

Potential Countermeasures	Crash Reduction Factor (LRSM/CMF ID)	20 Year Safety Benefit	Total 20-Year Costs	Safety Related B/C Ratio
Install bicycle lanes	35% (R32PB)	$2,429,490	$266,112	9.13
Install high visibility crosswalk	25% (S18PB)	$1,735,350	$5,880	295.13
Truncated Domes	5% (N/A)	$347,070	$500	694.14
Consider removing left turn at shopping center driveway near In-n-Out; extend left turn pocked at Senior Way to increase left turn queuing	5% (Custom)	$347,070	$475,000	0.73
Evaluate for Signal Warrant	5% (N/A)	$347,070	$15,000	23.14

Case Study Sheet: Location #5

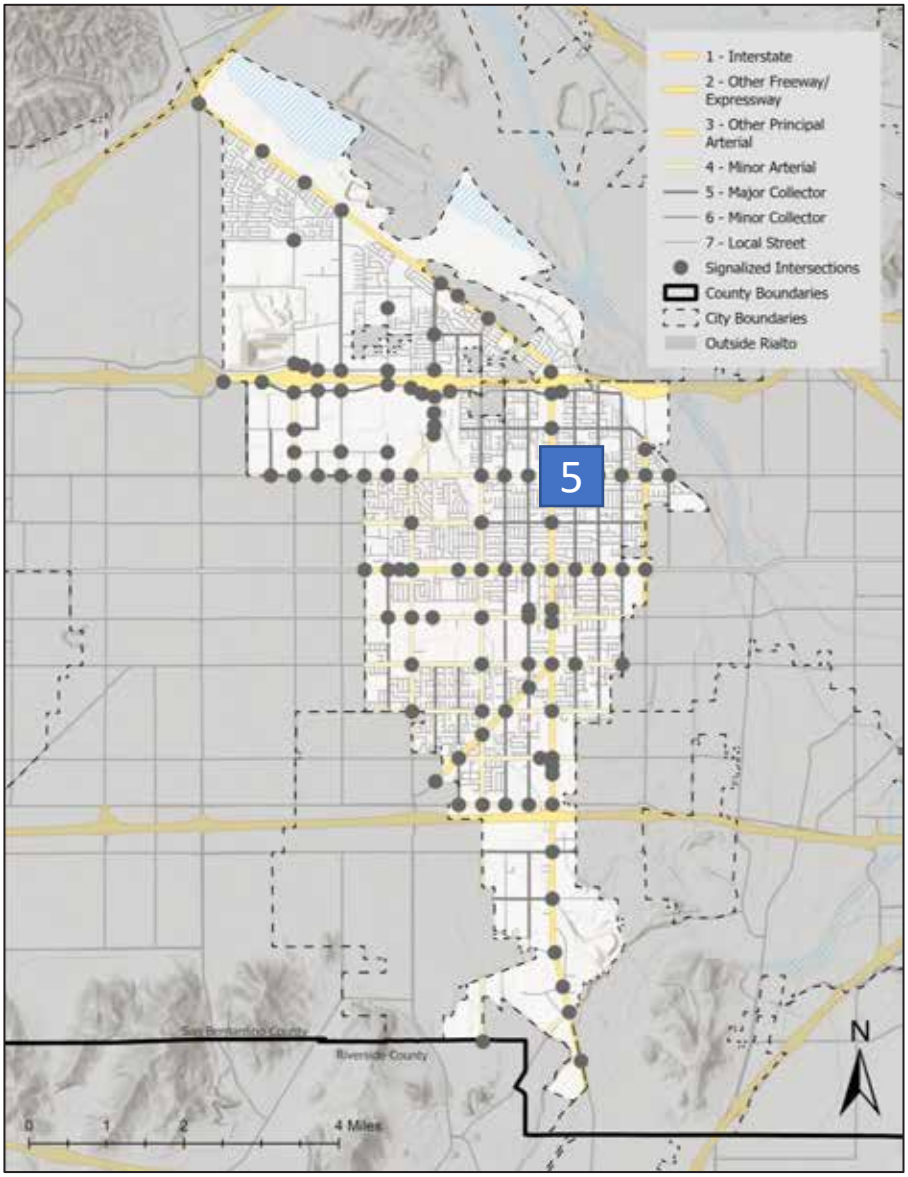
Project Name: Rialto Safety Action Plan
Agency Name: City of Rialto

SIGNALIZED INTERSECTION

Project Location, Description & Maps

Intersection: Sycamore Avenue & Baseline Road

Example of Similar Intersections: Alder Avenue & Riverside Avenue



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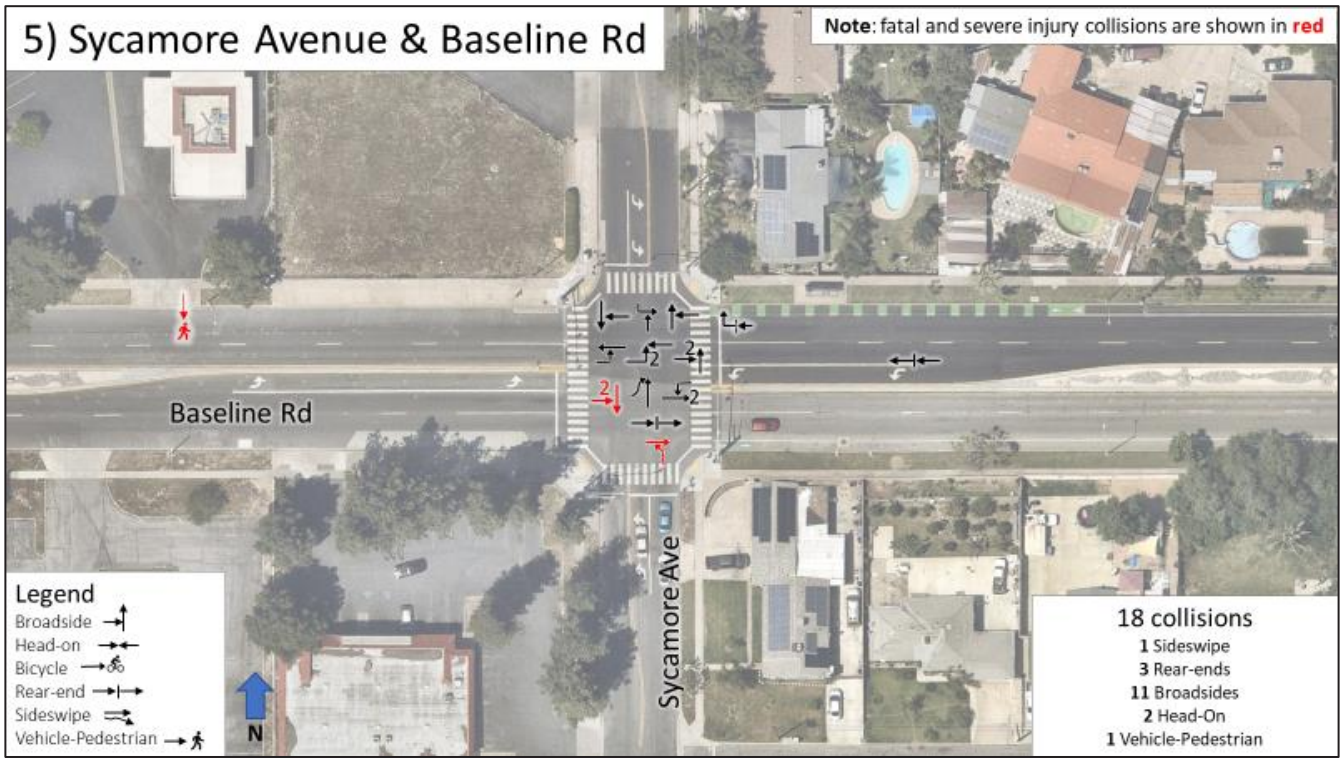
Case Study Sheet: Location #5



Project Location, Description & Maps

Collision Data	
Total Collisions	18
Fatal and Severe Injury Collisions	4
Top 3 Collision Types (%)	Broadside (67%) Rear-End (17%) Head-On (11%)
Dark Collisions	0
Impaired Collisions	1

Collision Data	
Number of Approaches	4
Crosswalk Condition	Crosswalk on all approaches
Control Type	Signalized Intersection
Lighting	Yes
Highest Posted Speed Limit	35 MPH

Collisions Involved With		
Vehicular	**Pedestrian**	**Bicycle**
17	1	0

Field Visit Notes

- High speeds and aggressive drivers
- Striped bike lane suddenly turns into shared lane

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Countermeasure Evaluation

Potential Countermeasures	Crash Reduction Factor (LRSM/CMF ID)	20 Year Safety Benefit	Total 20-Year Costs	Safety Related B/C Ratio
Install Bicycle Lanes (Green conflict striping through intersection)	35% (R32PB)	$3,763,270	$10,080	373.34
Provide protected left turn phase (left turn lane already exists)	30% (S07)	$3,225,660	$300,000	10.75
Improve signal hardware; lenses, backplate with retroreflective borders, mounting, size, and number	15% (S02)	$1,612,830	$4,032	400.01

Case Study Sheet: Location #6

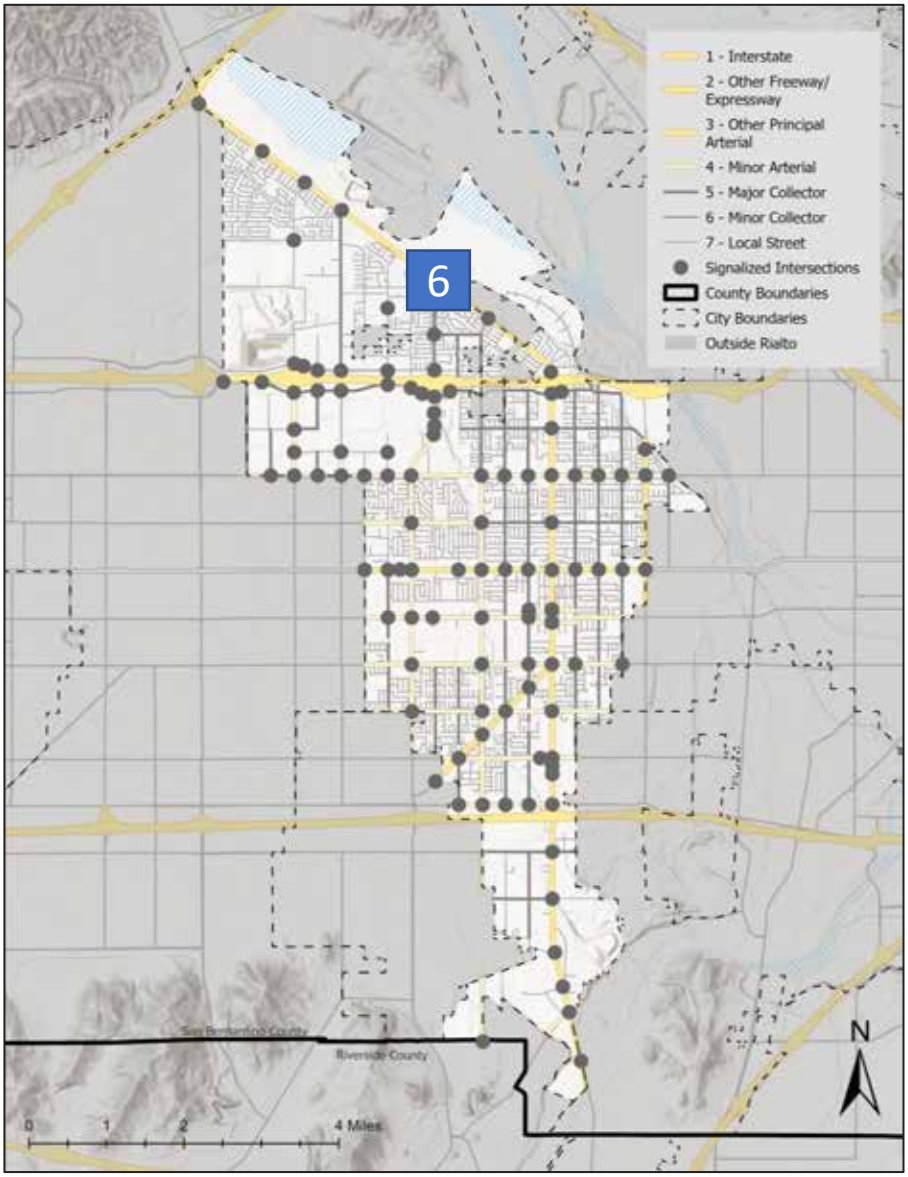
Project Name: Rialto Safety Action Plan
Agency Name: City of Rialto

SIGNALIZED INTERSECTION

Project Location, Description & Maps

Intersection: N Alder Avenue & Riverside Avenue

Example of Similar Intersections: Riverside Avenue & San Bernardino Avenue



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Project Location, Description & Maps

Collision Data	
Total Collisions	18
Fatal and Severe Injury Collisions	2
Top 3 Collision Types (%)	Broadside (44%) Head-on/Rear-end (44%) Sideswipe (11%)
Dark Collisions	0
Impaired Collisions	2

Collision Data	
Number of Approaches	3
Crosswalk Condition	Crosswalk on two approaches
Control Type	Signalized Intersection
Lighting	Yes
Highest Posted Speed Limit	50 MPH

Collisions Involved With		
Vehicular	**Pedestrian**	**Bicycle**
18	0	0

Field Visit Notes

- Striping and pavement markings faded
- Low pedestrian volumes
- Cars and freight trucks going high speeds

Countermeasure Evaluation

Potential Countermeasures	Crash Reduction Factor (LRSM/CMF ID)	20 Year Safety Benefit	Total 20-Year Costs	Safety Related B/C Ratio
Install Sidewalks	80% (R34PB)	$5,325,440	$7,000	760.787
Install multi-use paths	35% (R32PB)	$2,329,880	$31,584	73.77
Install high visibility crosswalks	25% (S17PB)	$1,664,200	$23,520	70.76
Install Raised Median	25% (R08)	$1,664,200	$168,000	9.91
Install centerline rumble strips/stripes	20% (R30)	$1,331,360	$16,800	79.25
Improve signal hardware; lenses, backplate with retroreflective borders, mounting, size, and number	15% (S02)	$998,520	$4,032	247.65

Case Study Sheet: Location #7

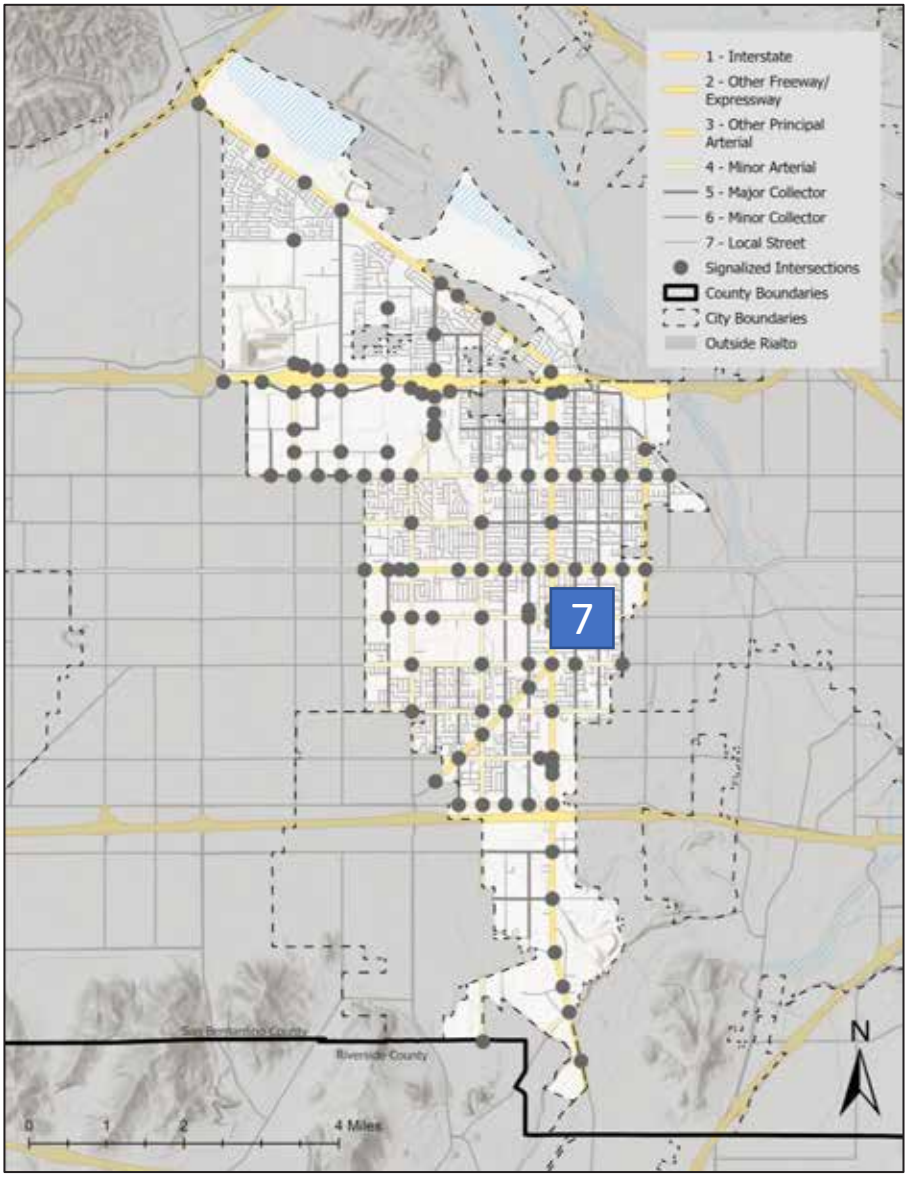
Project Name: Rialto Safety Action Plan
Agency Name: City of Rialto

UNSIGNALIZED INTERSECTION

Project Location, Description & Maps

Intersection: Acacia Avenue & Rialto Avenue

Example of Similar Intersections: Lilac Avenue and Merrill Avenue



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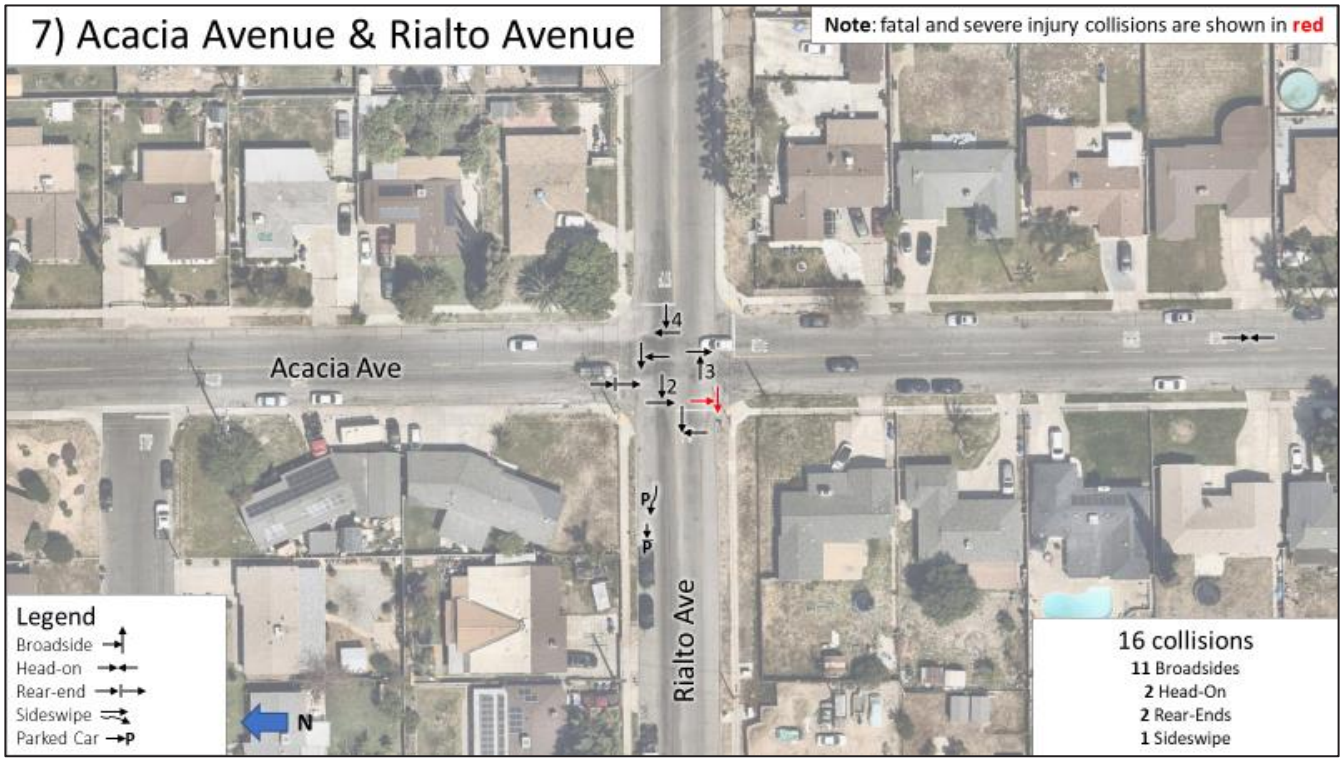


Project Location, Description & Maps

Collision Data	
Total Collisions	16
Fatal and Severe Injury Collisions	1
Top 3 Collision Types (%)	Broadside (69%) Rear-End/Head-On (25%) Sideswipe (6%)
Dark Collisions	0
Impaired Collisions	5

Collision Data	
Number of Approaches	4
Crosswalk Condition	No Crosswalks
Control Type	Unsignalized
Lighting	Yes
Highest Posted Speed Limit	40 MPH

Collisions Involved With		
Vehicular	**Pedestrian**	**Bicycle**
16	0	0

Field Visit Notes

- 40 MPH speed limit in low density residential area
- Stop bar located further back, bring forward to improve sight lines
- Pavement is cracking and only one streetlamp in the area

Countermeasure Evaluation

Potential Countermeasures	Crash Reduction Factor (LRSM/CMF ID)	20 Year Safety Benefit	Total 20-Year Costs	Safety Related B/C Ratio
Speed Feedback Signs	30% (R26)	$785,070	$13,440	58.41
Install traffic circle (Mini-roundabout)	30% (NS05)	$785,070	$840,000	0.93
Install high visibility crosswalk	25% (S18PB)	$654,225	$5,880	111.26
Daylighting (prohibit parking 20' from intersection)	20% (NS11)	$523,380	$20,000	26.17
Install speed bumps/humps	15% (S03)	$130,485	$16,800	7.79

Case Study Sheet: Location #8

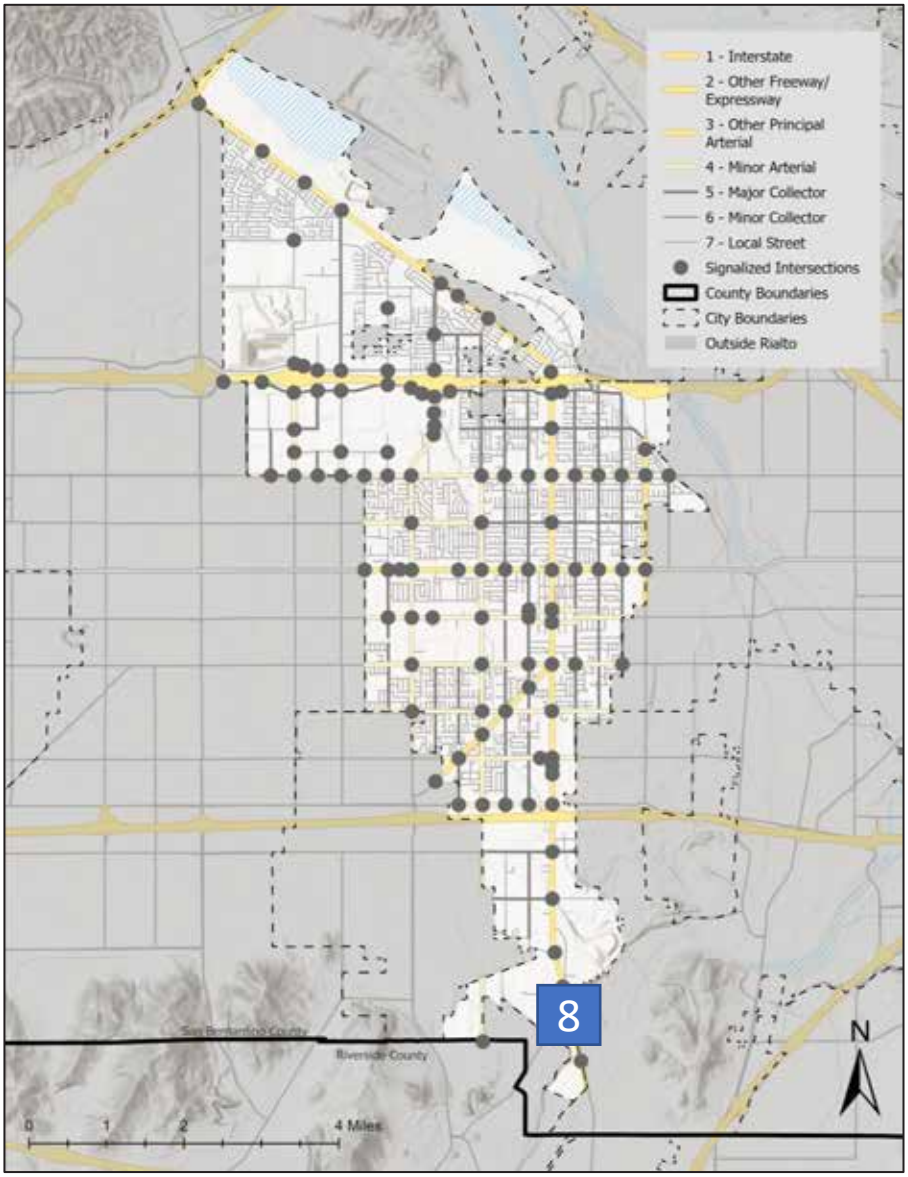
Project Name: Rialto Safety Action Plan
Agency Name: City of Rialto

ROADWAY SEGMENT

Project Location, Description & Maps

Segment: Riverside Avenue – Agua Mansa Road & Miguel Bustamante Parkway

Example of Similar Segments: Sycamore Avenue & Acacia Avenue



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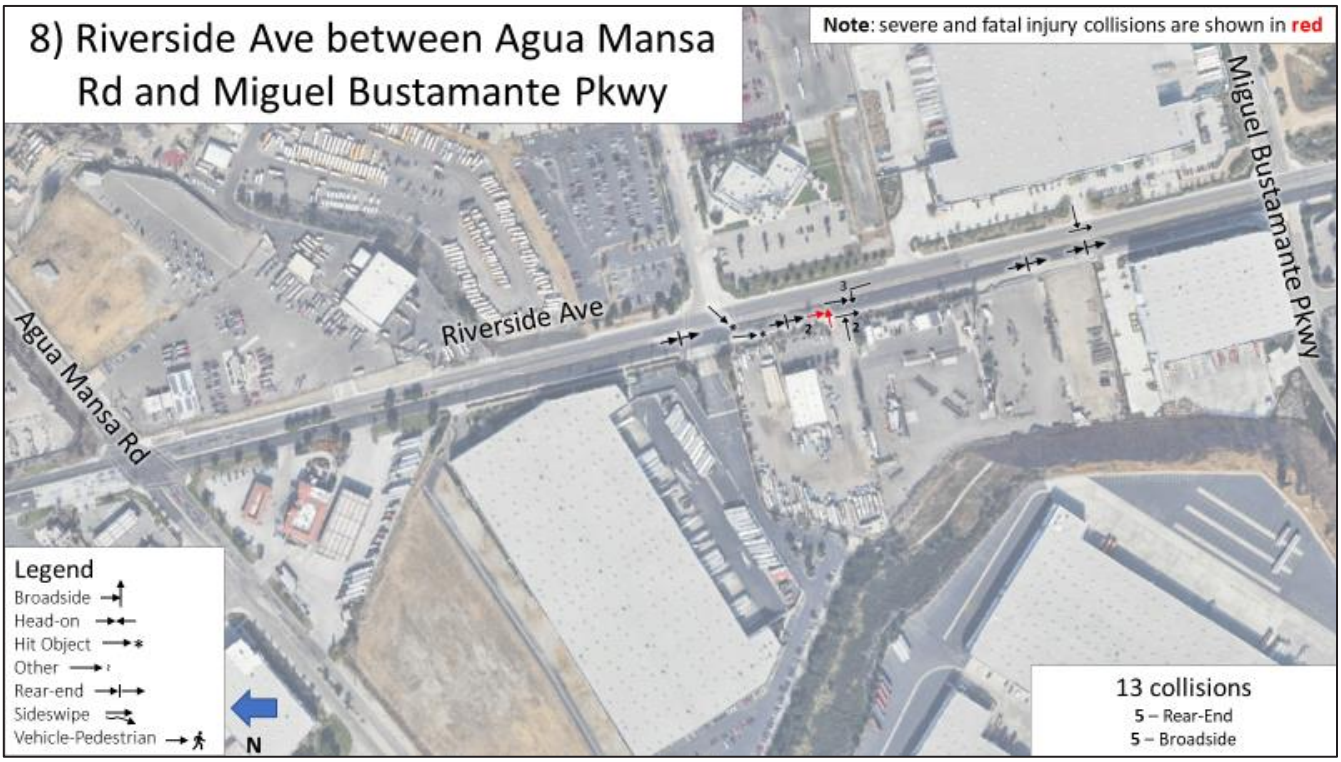


Project Location, Description & Maps

Collision Data	
Total Collisions	13
Fatal and Severe Injury Collisions	1
Top 3 Collision Types (%)	Broadside (46%) Rear-End (31%) Hit Object (15%)
Dark Collisions	0
Impaired Collisions	3

Collision Data	
Lighting	No
Median	At Agua Mansa Rd Intersection
Highest Posted Speed Limit	55 MPH

Collisions Involved With		
Vehicular	**Pedestrian**	**Bicycle**
13	0	0

Field Visit Notes

- Very wide lane widths, encouraging high speeds
- No sidewalks on some segments
- Visual obstructions blocking driveways

Countermeasure Evaluation

Potential Countermeasures	Crash Reduction Factor (LRSM/CMF ID)	20 Year Safety Benefit	Total 20-Year Costs	Safety Related B/C Ratio
Install sidewalk (complete gaps)	80% (R34PB)	$3,118,080	$7,000	445.44
Install high visibility crosswalks	25% (S18PB)	$974,400	$5,880	41.43
Install Centerline rumple strips/stripes	20% (R30)	$779,520	$4,200	185.60
Improve sight distance to intersection (Clear sight triangles/trimming vegetation)	20% (NS11)	$779,520	$30,000	25.98
Improve signal hardware; lenses, backplate with retroreflective borders, mounting, size, and number	15% (S02)	$584,640	$12,096	48.33

Case Study Sheet: Location #9

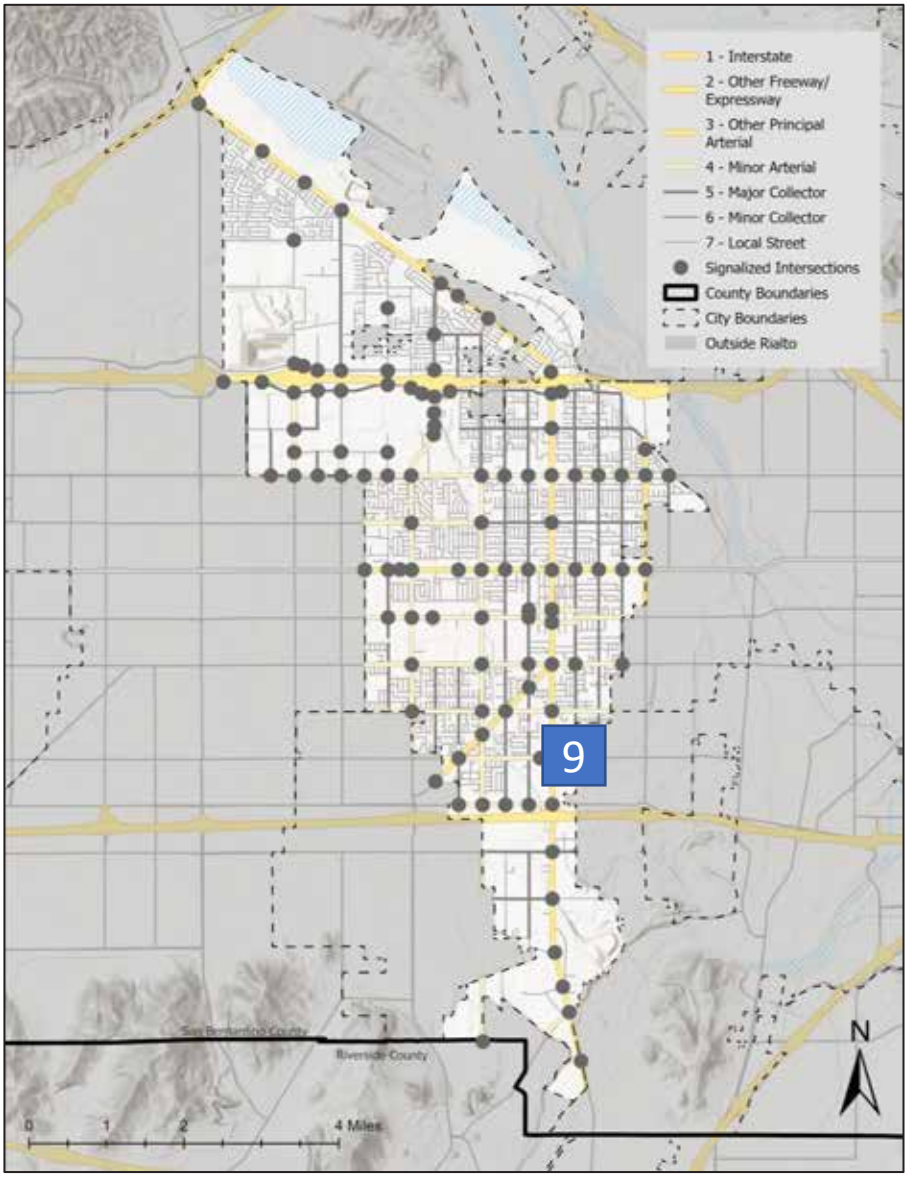
Project Name: Rialto Safety Action Plan
Agency Name: City of Rialto

UNSIGNALIZED INTERSECTION

Project Location, Description & Maps

Intersection : Sycamore Avenue & San Bernardino Ave

Example of Similar Segment: Riverside Avenue & E 3rd Street



Kimley»Horn

Case Study Sheet: Location #9

Project Location, Description & Maps

Collision Data	
Total Collisions	10
Fatal and Severe Injury Collisions	3
Top 3 Collision Types (%)	Head-On/Rear-End/Broadside (60%) Hit-Object (30%) Unknown (10%)
Dark Collisions	0
Impaired Collisions	3

Collision Data	
Number of Approaches	3
Crosswalk Condition	No Crosswalks
Control Type	Unsignalized
Lighting	Yes
Highest Posted Speed Limit	35 MPH

Collisions Involved With		
Vehicular	**Pedestrian**	**Bicycle**
9	0	1

Field Visit Notes

- High speeds upon entering Rialto due to changes in elevation
- No sidewalks on some segments, used as space to dump trash
- No turning pockets in the eastbound lane

Countermeasure Evaluation

Potential Countermeasures	Crash Reduction Factor (LRSM/CMF ID)	20 Year Safety Benefit	Total 20-Year Costs	Safety Related B/C Ratio
Add green conflict marking through the intersection	35% (R32PB)	$1,413,965	$10,080	140.27
Install signals	30% (NS03)	$1,211,970	$332,640	3.64
Install/upgrade larger or additional stop signs or other intersections + Warrant Analysis	15% (NS06)	$2,090,745	$20,000	104.54
Install Pedestrian Hybrid Beacon (PHB)	5% (N/A)	$696,915	$332,640	2.10
Install curb	5% (Custom)	$201,995	$62,160	3.25
Add Bus Stop amenities	5% (Custom)	$201,995	$52,000	3.88

Case Study Sheet: Location #10

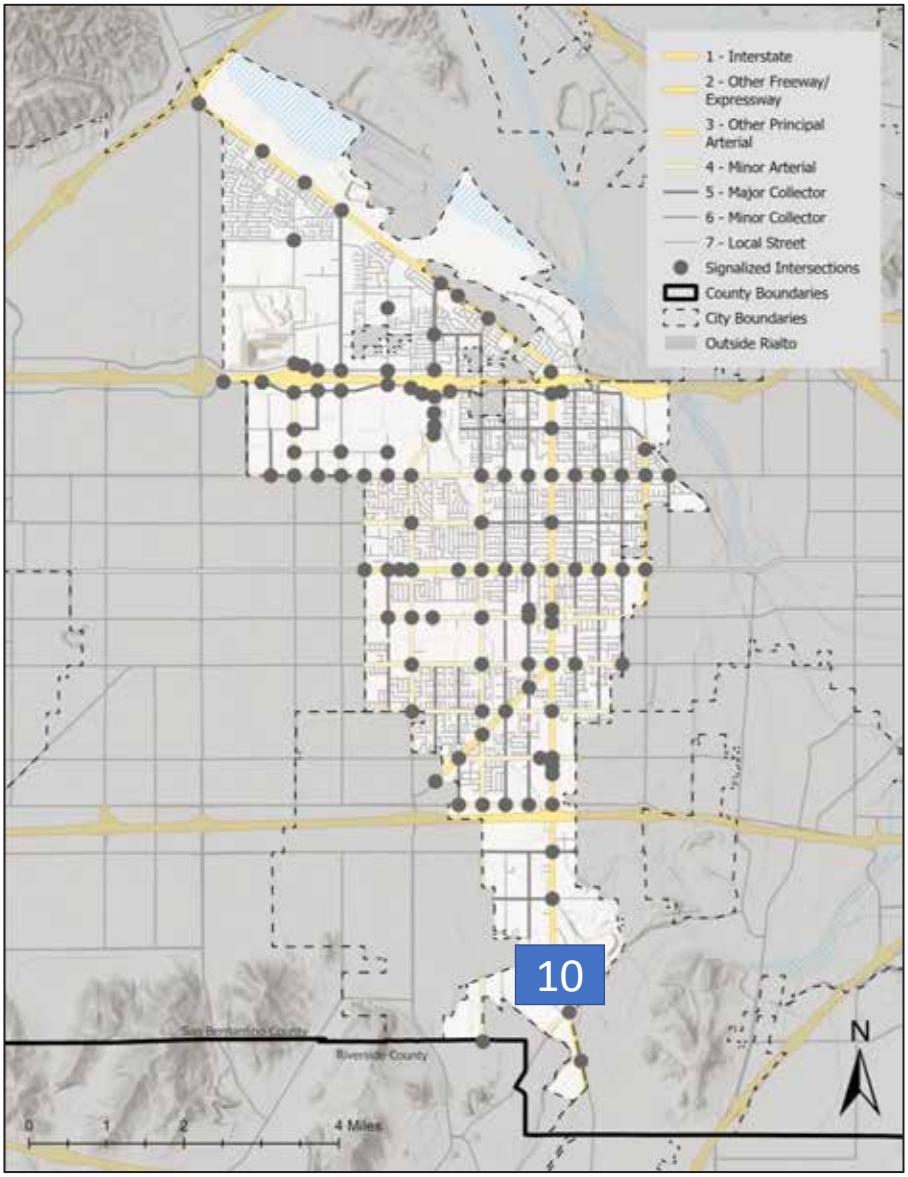
Project Name: Rialto Safety Action Plan
Agency Name: City of Rialto

ROADWAY SEGMENT

Project Location, Description & Maps

Segment: S Riverside Avenue – Industrial Drive to Jurupa Avenue

Example of Similar Segments: Riverside Avenue – Santa Ana Avenue to Mindanao Street



Kimley»Horn

Project Location, Description & Maps

Collision Data	
Total Collisions	5
Fatal and Severe Injury Collisions	3
Top 3 Collision Types (%)	Rear-End/Head-on/Overturned (60%) Hit Object (40%)
Dark Collisions	2
Impaired Collisions	1

Collision Data	
Lighting	Yes
Median	Yes
Highest Posted Speed Limit	55 MPH

Collisions Involved With		
Vehicular	**Pedestrian**	**Bicycle**
5	0	0

Field Visit Notes

- Recently added concrete median
- High speeds and high truck volume from Riverside

Countermeasure Evaluation

Potential Countermeasures	Crash Reduction Factor (LRSM/CMF ID)	20 Year Safety Benefit	Total 20-Year Costs	Safety Related B/C Ratio
Install sidewalks	80% (R34PB)	$11,422,720	$28,000	407.95
Install high visibility crosswalk	35% (S18PB)	$3,569,600	$11,760	303.54
Convert intersection to mini-roundabout	30% (NS05)	$4,283,520	$1,680,000	2.55
Install Raised Median	25% (R08)	$3,569,600	$168,000	21.25

Case Study Sheet: Location #11

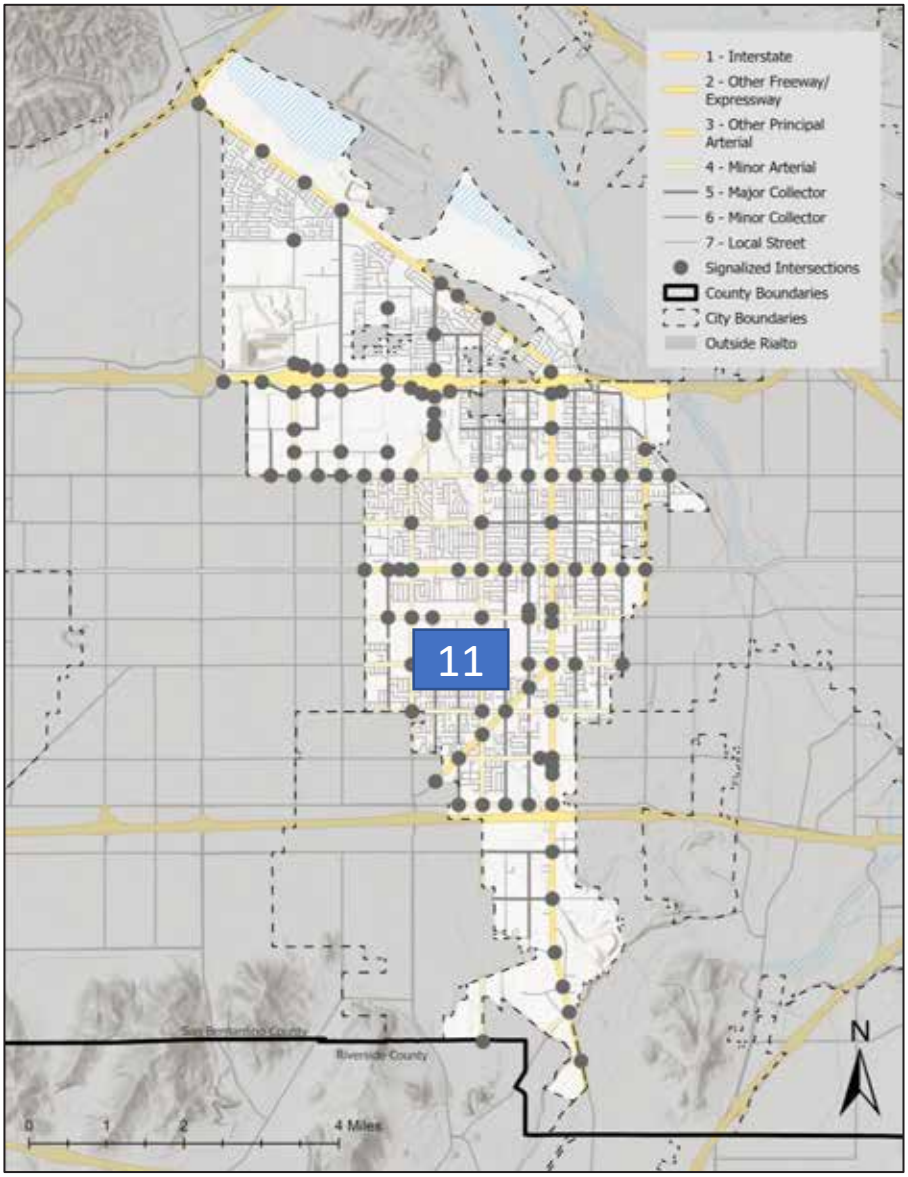
Project Name: Rialto Safety Action Plan
Agency Name: City of Rialto

ROADWAY SEGMENT

Project Location, Description & Maps

Segment: Merrill Avenue – Linden Avenue to Cedar Street

Example of Similar Segment: Rialto Avenue – Maple Avenue to Linden Avenue



Kimley»Horn

Case Study Sheet: Location #11

Project Location, Description & Maps

Collision Data	
Total Collisions	4
Fatal and Severe Injury Collisions	2
Top 3 Collision Types (%)	Rear-End/Head On/Hit Object (75%) Vehicle/Pedestrian(25%)
Dark Collisions	1
Impaired Collisions	0

Collision Data	
Lighting	Yes
Median	No
Highest Posted Speed Limit	45 MPH

Collisions Involved With		
Vehicular	**Pedestrian**	**Bicycle**
2	1	1

Field Visit Notes

- No crosswalk at Linden Avenue and a shared bicycle lane
- 45 MPH speed limit on relatively small road

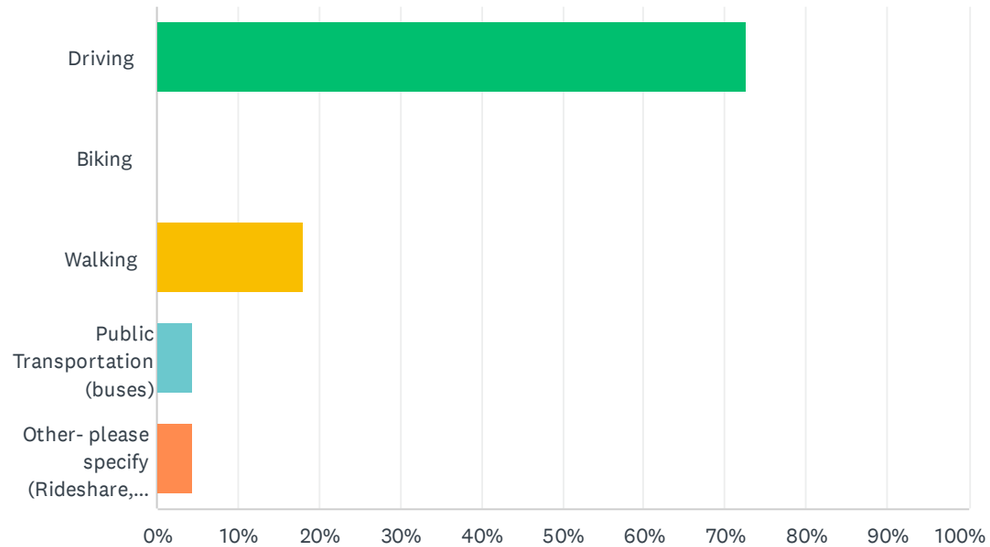
Countermeasure Evaluation

Potential Countermeasures	Crash Reduction Factor (LRSM/CMF ID)	20 Year Safety Benefit	Total 20-Year Costs	Safety Related B/C Ratio
Install Sidewalks	80% (R34PB)	$7,691,040	$7,000	1098.72
Install Rapid Rectangular Flashing Beacon (RRFB) Solar	35% (R37PB)	$3,364,830	$42,000	80.12
Install lighting	5% (NS01)	$480,690	$26,880	17.88

APPENDIX B. ONLINE PUBLIC SURVEY FEEDBACK

Q1 What is your primary mode of transportation when traveling within the City of Rialto?

Answered: 22 Skipped: 0



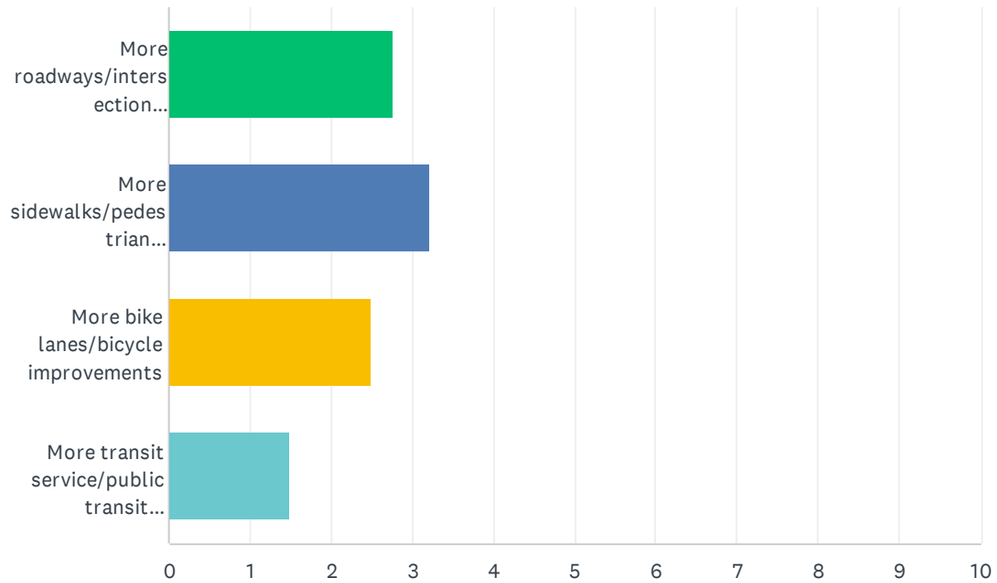
ANSWER CHOICES	RESPONSES	
Driving	72.73%	16
Biking	0.00%	0
Walking	18.18%	4
Public Transportation (buses)	4.55%	1
Other- please specify (Rideshare, scooter, etc.)	4.55%	1
TOTAL		22

#	OTHER- PLEASE SPECIFY (RIDESHARE, SCOOTER, ETC.)	DATE

1	worms	1/20/2025 11:58 AM

Q2 Which areas of improvement would you prioritize to enhance safety in the City of Rialto? Please rank the items below. (Most important=1; least important=4)

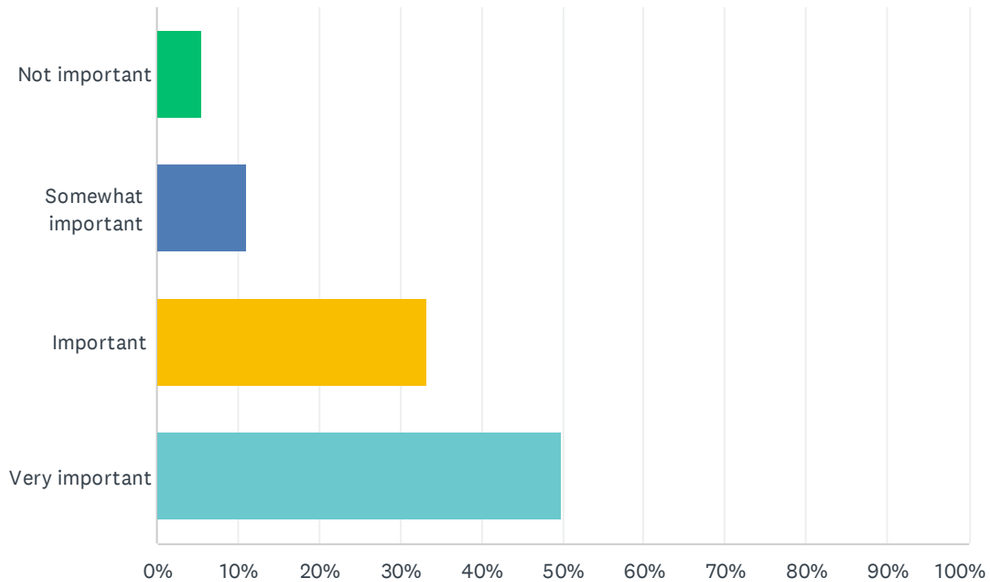
Answered: 18 Skipped: 4



	1	2	3	4	TOTAL	SCORE
More roadways/intersection improvements	44.44% 8	11.11% 2	22.22% 4	22.22% 4	18	2.78
More sidewalks/pedestrian improvements	38.89% 7	44.44% 8	16.67% 3	0.00% 0	18	3.22
More bike lanes/bicycle improvements	16.67% 3	27.78% 5	44.44% 8	11.11% 2	18	2.50
More transit service/public transit improvements	0.00% 0	16.67% 3	16.67% 3	66.67% 12	18	1.50

Q3 How would you rate the importance of improving alternative transportation options (such as biking, walking, and public transportation) in the City of Rialto?

Answered: 18 Skipped: 4

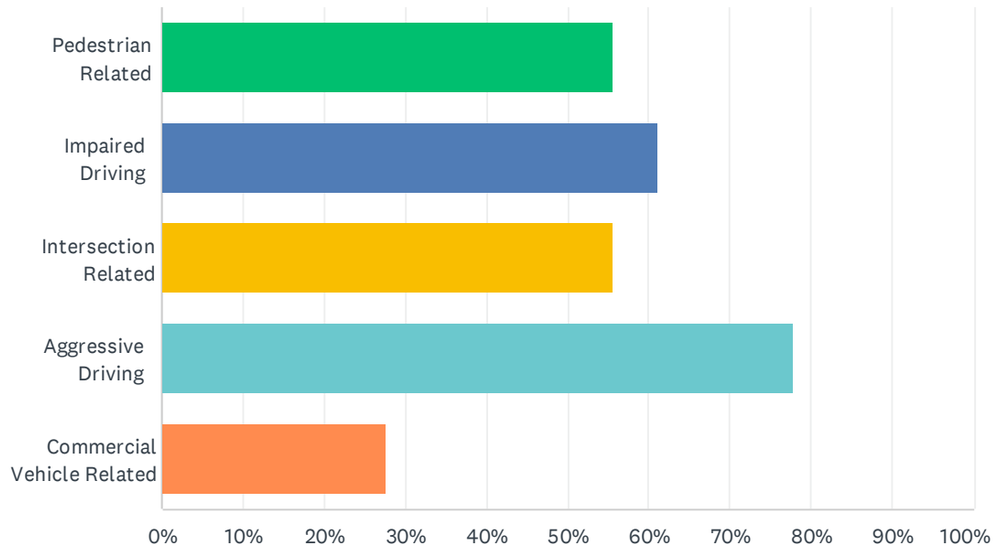


ANSWER CHOICES	RESPONSES	
Not important	5.56%	1
Somewhat important	11.11%	2
Important	33.33%	6
Very important	50.00%	9
TOTAL		18

#	PLEASE EXPLAIN WHY YOU CHOSE YOUR RANKING ABOVE.	DATE
1	worms!	1/20/2025 11:59 AM
2	Walking saves money and also keep you exercising and a lot shopping centers are walking distance from my home	1/9/2025 5:06 PM
3	No sense of community and too many car accidents due to speed	12/23/2024 8:53 PM
4	More public transportation would help homebound people get out more	12/20/2024 9:34 AM
5	Many of the community members ride or walk to their destinations.	12/19/2024 7:05 PM
6	Keeps people using alternative methods of transportation like walking and bicycling safer	11/25/2024 1:00 PM
7	The less cars that are on the road the safer it'll be for everyone	11/22/2024 5:10 AM
8	It's not safe to move around with the crazy amount of drivers	11/21/2024 7:03 PM
9	City residence is safety is number one concern.	11/21/2024 5:57 PM
10	To create a family friendly environment where families can walk and bike together	8/6/2024 9:59 PM
11	I love some of the improvements and the walking trail but my issue is that it doesn't feel safe to walk or bike on our streets.	8/6/2024 7:59 PM

Q4 Which topics of concern should be addressed to improve traffic related safety efforts in the City of Rialto? (Select all that apply)

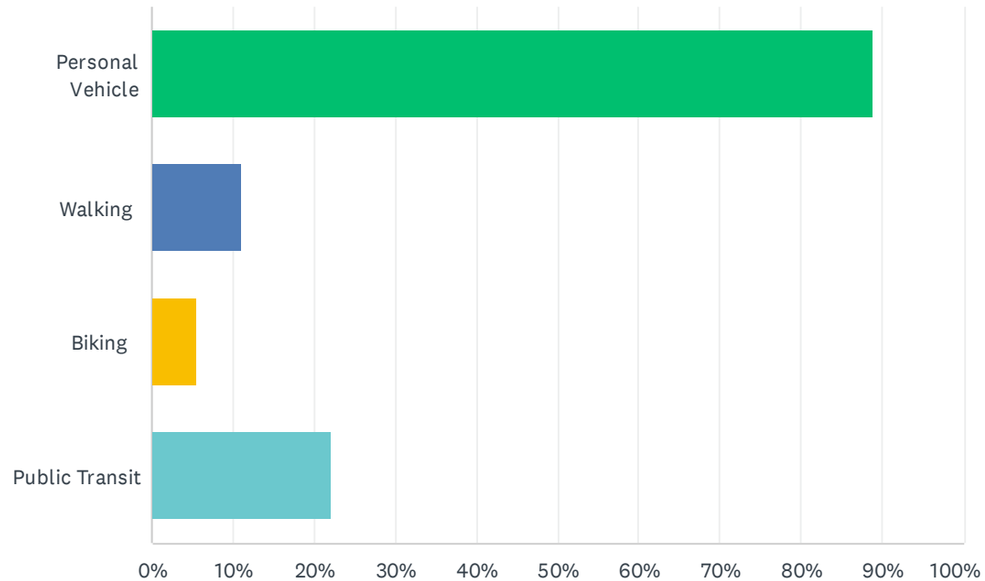
Answered: 18 Skipped: 4



ANSWER CHOICES	RESPONSES	
Pedestrian Related	55.56%	10
Impaired Driving	61.11%	11
Intersection Related	55.56%	10
Aggressive Driving	77.78%	14
Commercial Vehicle Related	27.78%	5
Total Respondents: 18		

Q5 Which modes of transportation do you feel safe using in the City of Rialto? (Select all that apply)

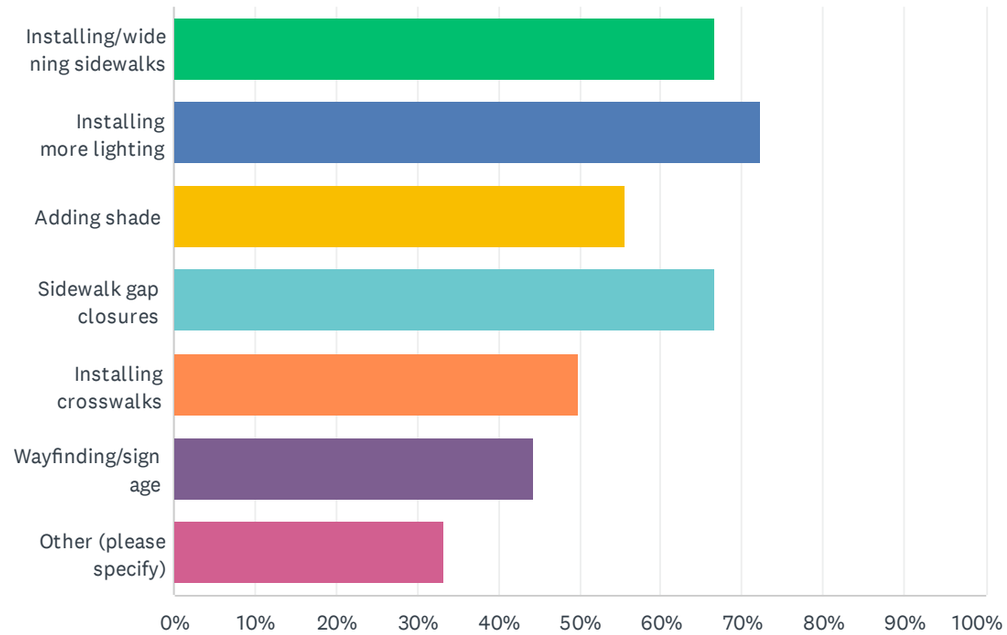
Answered: 18 Skipped: 4



ANSWER CHOICES	RESPONSES	
Personal Vehicle	88.89%	16
Walking	11.11%	2
Biking	5.56%	1
Public Transit	22.22%	4
Total Respondents: 18		

Q6 What would make walking around the City of Rialto more appealing? (Select all that apply)

Answered: 18 Skipped: 4

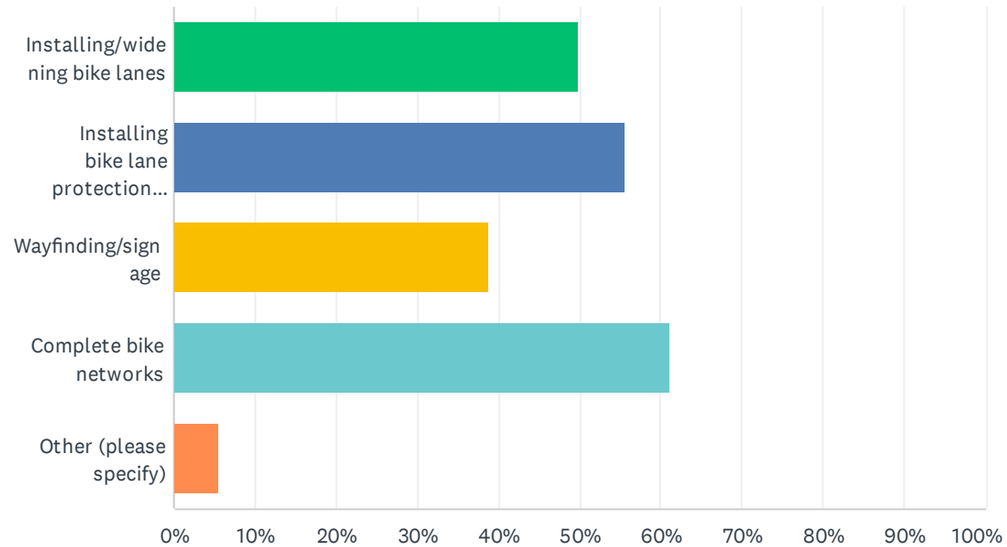


ANSWER CHOICES	RESPONSES	
Installing/widening sidewalks	66.67%	12
Installing more lighting	72.22%	13
Adding shade	55.56%	10
Sidewalk gap closures	66.67%	12
Installing crosswalks	50.00%	9
Wayfinding/signage	44.44%	8
Other (please specify)	33.33%	6
Total Respondents: 18		

#	OTHER (PLEASE SPECIFY)	DATE
1	Near my address 339 W Montrose cares drive more then the speed limit speed bumps would be great large ones to stop speeding drivers from almost running g over pedestrian and students on there way to the bus stop.	1/9/2025 5:09 PM
2	Remove tree overhangs	12/29/2024 10:23 AM
3	Adding more stop signs or speed bumps in neighborhoods. Cars drive extremely fast. Careless driving.	12/23/2024 8:55 PM
4	Daylighting at intersections, raised cross walks, no slip lanes	11/21/2024 7:06 PM
5	Sidewalk needs yo be clear of growing weeds	8/6/2024 9:20 PM
6	We have the ring and people are constantly posting people stealing off the front yards or random people knocking at their doors don’t just feels like it’s not safe to walk around our streets the way people do in cities like Rancho	8/6/2024 8:04 PM

Q7 What would make biking around the City of Rialto more appealing? (Select all that apply)

Answered: 18 Skipped: 4



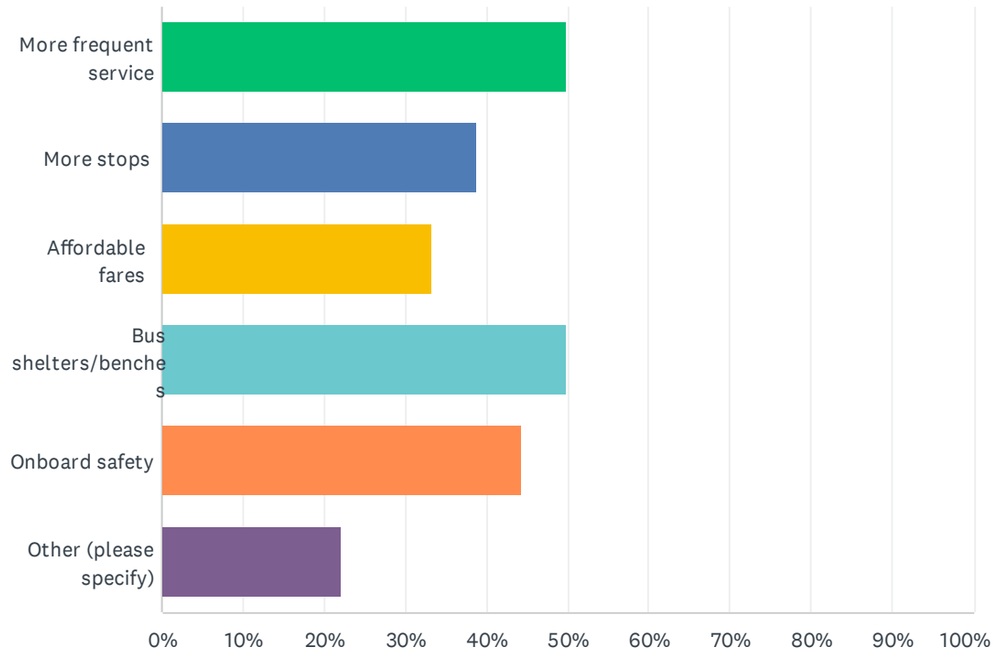
ANSWER CHOICES	RESPONSES	
Installing/widening bike lanes	50.00%	9
Installing bike lane protection (bollards, concrete barriers, etc.)	55.56%	10
Wayfinding/signage	38.89%	7
Complete bike networks	61.11%	11
Other (please specify)	5.56%	1
Total Respondents: 18		

#	OTHER (PLEASE SPECIFY)	DATE

1	wider streets and less drunk drivers	12/19/2024 7:06 PM

Q8 What would make using public transportation around the City of Rialto more appealing? (Select all that apply)

Answered: 18 Skipped: 4

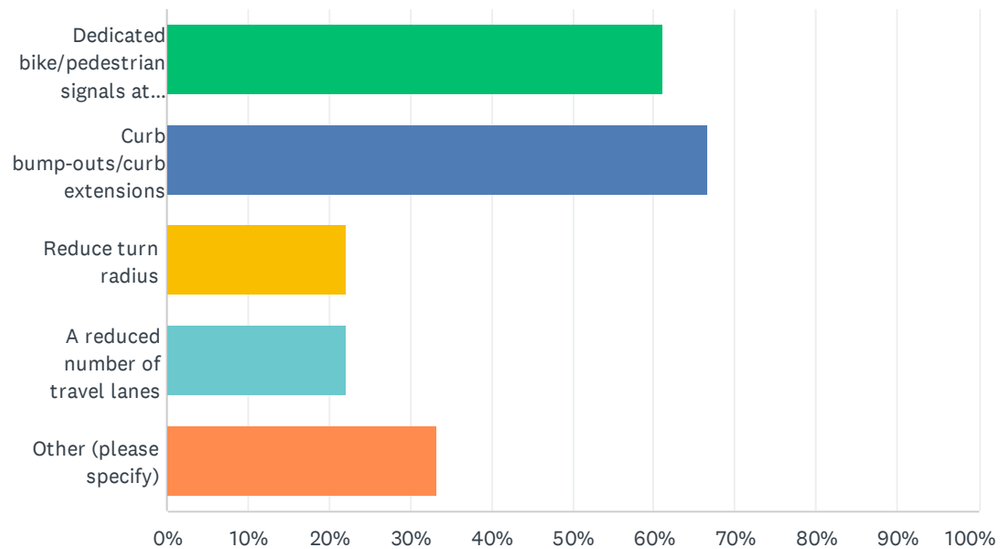


ANSWER CHOICES	RESPONSES	
More frequent service	50.00%	9
More stops	38.89%	7
Affordable fares	33.33%	6
Bus shelters/benches	50.00%	9
Onboard safety	44.44%	8
Other (please specify)	22.22%	4
Total Respondents: 18		

#	OTHER (PLEASE SPECIFY)	DATE
1	Gear toward families and working class people.	12/23/2024 8:57 PM
2	None	11/25/2024 1:03 PM
3	Ease of use & more informational	11/22/2024 12:06 AM
4	Homeless people hangout at bus stops	8/6/2024 8:06 PM

Q9 What types of road improvements do you believe would enhance the comfort of alternative transportation (walking, biking, and public transportation) in the City of Rialto? (Select all that apply)

Answered: 18 Skipped: 4



ANSWER CHOICES	RESPONSES	
Dedicated bike/pedestrian signals at stoplights	61.11%	11
Curb bump-outs/curb extensions	66.67%	12
Reduce turn radius	22.22%	4
A reduced number of travel lanes	22.22%	4
Other (please specify)	33.33%	6
Total Respondents: 18		

#	OTHER (PLEASE SPECIFY)	DATE
1	Speed bumps on 309 W Montrose St. To 369 W Montrose Street	1/9/2025 5:12 PM
2	Remove concrete lane dividers	12/29/2024 10:26 AM
3	Adapting measurements to slow vehicles down in neighborhoods and add more ambient lights so pedestrians can be seen in the early hours and in winter when time changes.	12/23/2024 8:58 PM
4	Pedestrian signals at high volume crossings	11/26/2024 10:37 AM
5	Decreasing the width of the lanes	11/22/2024 5:12 AM
6	A few streets in my neighborhood have been improved so thank you!	8/6/2024 8:07 PM

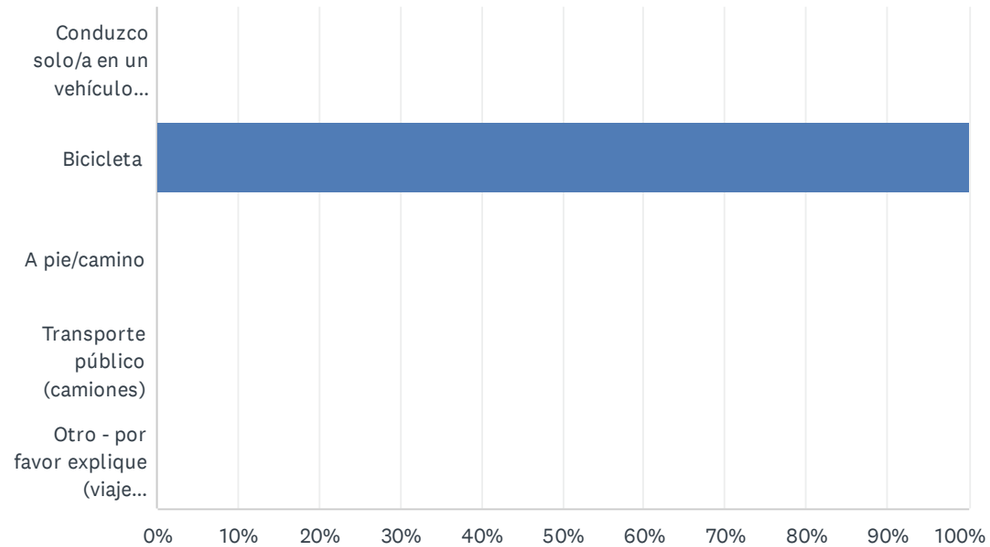
Q10 Do you have any other safety-related concerns or suggestions for improvement(s) for the City of Rialto's Safety Action Plan?

Answered: 11 Skipped: 11

#	RESPONSES	DATE
1	Speeding cars on 309 W Montrose Street thru 369 W Montrose Street Rialto Ca	1/9/2025 5:13 PM
2	Merrill Avenue between Cedar and Maple is extremely dangerous due to excessive speeding and pedestrians frequently walking in the streets, particularly from Bob's Market to Maple. Additionally, Linden Avenue poses significant risks, with vehicles often pulling out in front of speeding cars. This area urgently needs a crosswalk and either a traffic light or a stop sign to improve safety for both drivers and pedestrians.	1/6/2025 10:45 PM
3	There are too many red light runners. We need more police officers and cameras at intersections to slow drivers down. This is an increasing concern. I see it everyday at Acacia & Baseline. It's frightening & extremely dangerous	12/29/2024 10:30 AM
4	Yes. I've wrote to the city of Rialto to please add an additional stop off Eucalyptus near foothill blvd. Cars zoom by going 60 miles per hour. There is 2 elementary schools nearby and a church. I no longer feel safe walking, due to the speed of vehicles on that street and almost being hit, having to run quickly to cross the street. The lack of response by the City is disappointing.	12/23/2024 9:03 PM
5	no	12/19/2024 7:07 PM
6	No	11/26/2024 10:37 AM
7	None	11/25/2024 1:04 PM
8	Please address the fact that so many people speed especially on a road like Baseline	11/22/2024 5:13 AM
9	Follow through with the plan, make it a priority, don't take out parks for parking lots.	11/21/2024 7:08 PM
10	Complete side walk segments on Est bound second street at Cactus. Complete side walk segments on first street east bound and west bound at Cactus and lilac.	11/21/2024 6:08 PM
11	More lighting in our neighborhoods. And like I keep saying figuring out how we can feel safe walking on our streets. Last year one of our cars parked on the street had a bullet hole…it's like seriously…how dangerous is that why are people shooting like that. Thank you!	8/6/2024 8:10 PM

Q1 ¿Cómo se traslada dentro de la ciudad de Rialto?

Answered: 1 Skipped: 0



ANSWER CHOICES	RESPONSES	
Conduzco solo/a en un vehículo particular	0.00%	0
Bicicleta	100.00%	1
A pie/camino	0.00%	0
Transporte público (camiones)	0.00%	0
Otro - por favor explique (viaje compartido como Uber, patineta, etc.)	0.00%	0
TOTAL		1

#	OTRO - POR FAVOR EXPLIQUE (VIAJE COMPARTIDO COMO UBER, PATINETA, ETC.)	DATE

There are no responses.

Q2 ¿Cuáles áreas priorizaría para mejorar la seguridad vial en la ciudad de Rialto? Por favor ordene las respuestas abajo (1 = más importante; 4 = menos importante)

Answered: 0 Skipped: 1

No matching responses.

	1	2	3	4	TOTAL	SCORE
Más mejoramientos de las calles/intersección	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0	0.00
Más mejoramientos de las banquetas/cruces peatonales	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0	0.00
Más mejoramientos de ciclovías/carriles para bicicletas	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0	0.00
Más mejoramientos del transporte público/transito	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0	0.00

Q3 ¿Cómo calificaría la importancia de mejorar modos alternativos de trasporte en la ciudad de Rialto? (EE., bicicletas, caminando, transporte público, etc.)

Answered: 0 Skipped: 1

No matching responses.

ANSWER CHOICES	RESPONSES	
No importante	0.00%	0
Más o menos importante	0.00%	0
Importante	0.00%	0
Muy Importante	0.00%	0
TOTAL		0

Q4 ¿Cuáles temas deben ser abordados para mejorar esfuerzos de seguridad vial en a la ciudad de Rialto? (Seleccione todos los que apliquen)

Answered: 0 Skipped: 1

No matching responses.

ANSWER CHOICES	RESPONSES	
Relacionados a peatones	0.00%	0
Manejando ebrio	0.00%	0
Relacionados a intersecciones	0.00%	0
Conduciendo agresivamente	0.00%	0
Relacionados a vehículos comerciales	0.00%	0
Total Respondents: 0		

Q5 ¿Cuáles modos de transporte se siente seguro/a usando en la ciudad de Rialto? (Seleccione todos los que apliquen)

Answered: 0 Skipped: 1

No matching responses.

ANSWER CHOICES	RESPONSES	
Vehículo personal/particular	0.00%	0
Caminando	0.00%	0
Bicicleta	0.00%	0
Transporte Público	0.00%	0
Total Respondents: 0		

Q6 ¿Qué haría caminando una opción más atractiva en la ciudad de Rialto? (Seleccione todos lo que apliquen)

Answered: 0 Skipped: 1

No matching responses.

ANSWER CHOICES	RESPONSES	
Instalando/expandiendo aceras/banquetas	0.00%	0
Instalando más luces nocturnas	0.00%	0
Añadiendo sombra	0.00%	0
Reparando quebraduras en la red de aceras/peatonales	0.00%	0
Instalando más pasos peatonales	0.00%	0
Letreros/Señales e señaléticas	0.00%	0
Otro (por favor especifique)	0.00%	0
Total Respondents: 0		

#	OTRO (POR FAVOR ESPECIFIQUE)	DATE
	There are no responses.	

Q7 ¿Qué haría usando una bicicleta una opción más atractiva en la ciudad de Rialto? (Seleccione todos lo que apliquen)

Answered: 0 Skipped: 1

No matching responses.

ANSWER CHOICES	RESPONSES	
Instalando/expandiendo ciclovías/carriles de bicicletas	0.00%	0
Instalando ciclovías protegidas (postes, barreras de concreto,	0.00%	0
Añadiendo sombra	0.00%	0
Reparando quebraduras en la red de aceras/peatonal	0.00%	0
Instalando más pasos peatonales	0.00%	0
Letreros/señales y señaléticas	0.00%	0
Otro (por favor especifique)	0.00%	0
Total Respondents: 0		

#	OTRO (POR FAVOR ESPECIFIQUE)	DATE
	There are no responses.	

Q8 ¿Qué haría usando el transporte público una opción más atractiva en la ciudad de Rialto? (Seleccione todos lo que apliquen)

Answered: 0 Skipped: 1

No matching responses.

ANSWER CHOICES	RESPONSES	
Más servicio frecuente	0.00%	0
Más paradas de autobús	0.00%	0
Precios asequibles	0.00%	0
Paradas de autobús/bancas	0.00%	0
Seguridad a bordo del transporte publico	0.00%	0
Otro (por favor especifique)	0.00%	0
Total Respondents: 0		

#	OTRO (POR FAVOR ESPECIFIQUE)	DATE
	There are no responses.	

Q9 ¿Qué tipos de mejoramientos aumentaría el confort de modos alternativos de trasporte en la ciudad de Rialto? (EE., bicicletas, caminando, transporte público, etc.) (Seleccione todos lo que apliquen)

Answered: 0 Skipped: 1

No matching responses.

ANSWER CHOICES	RESPONSES	
Señales dedicadas para peatones y ciclistas en los semáforos	0.00%	0
Extensión de la acera/banqueta o saliente de acera	0.00%	0
Reduciendo la distancia de giros para vehículos	0.00%	0
Reduciendo el numero de carriles para vehículos	0.00%	0
Otro (por favor especifique)	0.00%	0
Total Respondents: 0		

#	OTRO (POR FAVOR ESPECIFIQUE)	DATE
	There are no responses.	

Q10 ¿Tiene otra sugerencia o preocupación relaciona a la seguridad vial para mejorar el Plan de Acción de Seguridad de la ciudad de Rialto?

Answered: 0 Skipped: 1

#	RESPONSES	DATE
	There are no responses.	